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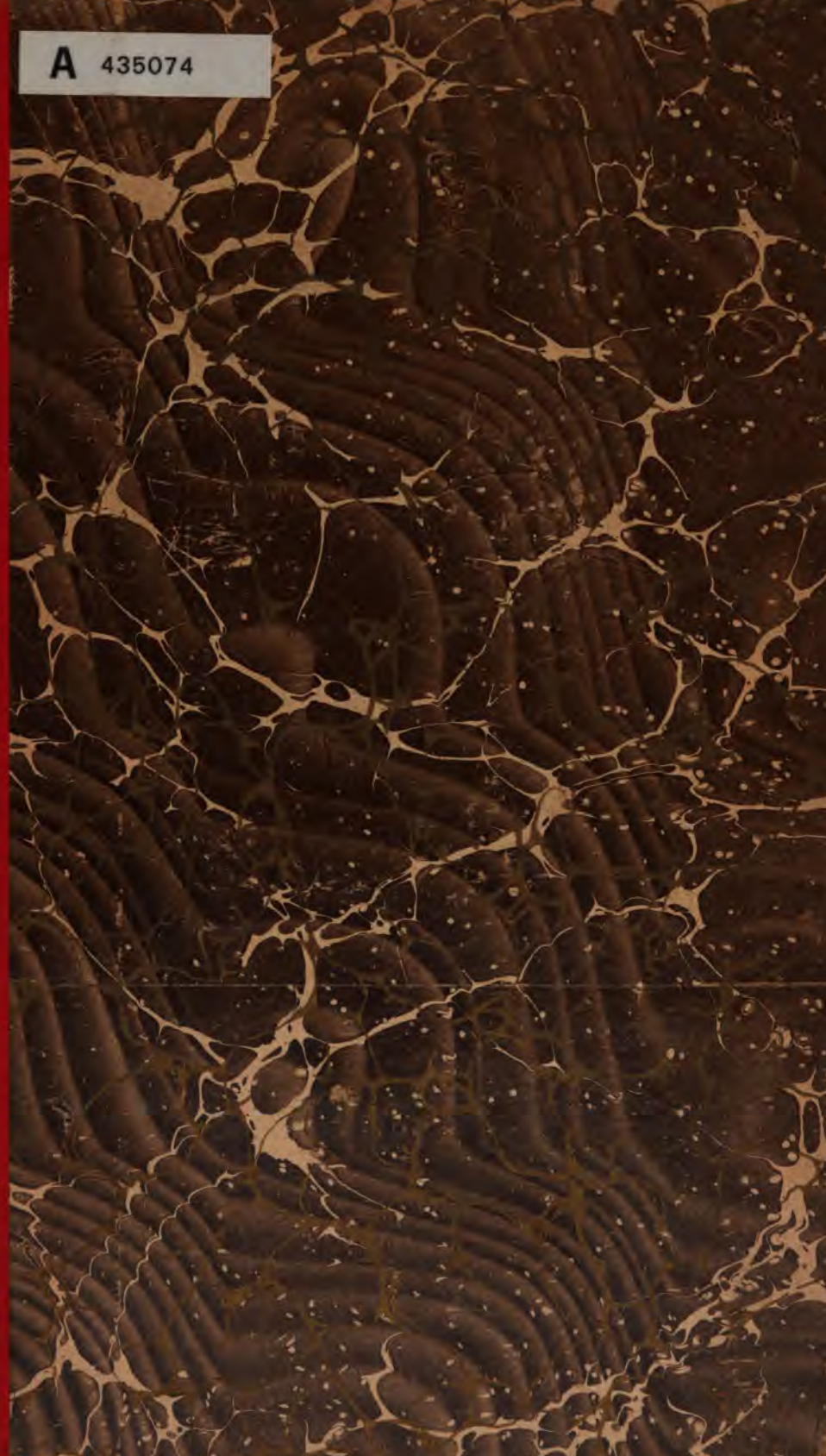
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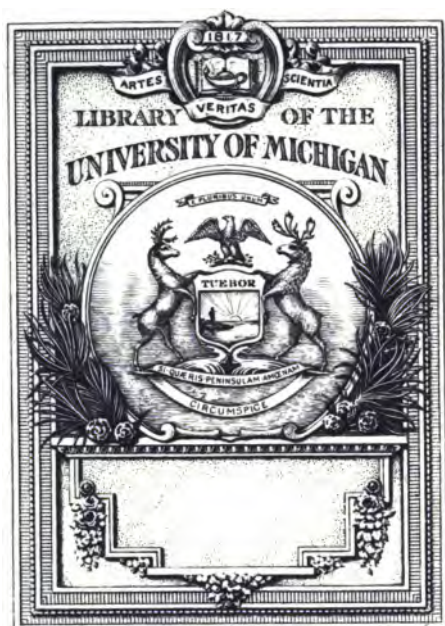
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1904

Regents Bulletin

No. 64

UNIV. OF THE STATE OF N.Y.

42d UNIVERSITY CONVOCATION

OF THE

STATE OF NEW YORK, JUNE 27-29, 1904

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ALBANY

NEW YORK STATE EDUCATION DEPARTMENT

1904

STATE OF NEW YORK
EDUCATION DEPARTMENT

Regents of the University
With years when terms expire

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1904	Prin. FLOYD J. BARTLETT	- - - -	Auburn High School
1905	Prin. MYRON T. SCUDDER	- - -	New Paltz Normal School
1906	Dean JAMES E. RUSSELL	- - - -	Teachers College
			Columbia University, New York
1907	District Sup't DARWIN L. BARDWELL	- - -	New York
1908	Prof. GEORGE P. BRISTOL	- - - -	Cornell University

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Regents Bulletin

No. 64

42d UNIVERSITY CONVOCATION

OF THE

STATE OF NEW YORK, JUNE 27-29, 1904

SUMMARY OF SESSIONS

1st session, Monday, June 27, 1904

3 p. m. Executive session of Convocation Council

8 p. m. Convocation called to order by Chancellor WHITE-LAW
REID

Prayer by REV. DR WILLIAM FORCE WHITAKER

Chancellor's annual address

University Problems in the Metropolis

Chanc. HENRY M. MACCRACKEN, New York University

2d session, Tuesday morning, June 28, 9.30 a. m.

The Function of the University Schools of Pedagogy

Prof. J. P. GORDY, New York University, School of Pedagogy

The Content of Secondary Education

Prin. A. R. BRUBACHER, Gloversville High School

Is it Desirable and Practicable to Lessen the Number of State
Educational Gatherings?

District Sup't C. E. FRANKLIN, New York city

General Discussion

Sup't ELMER S. REDMAN, president of State Council of
School Superintendents

Prof. GEORGE P. BRISTOL, representing the State Teachers
Association

Com'r E. S. COMSTOCK, vice president of Association of School
Commissioners and Superintendents

Prin. HOWARD CONANT, Elmira Free Academy

Prin. JAMES WINNE, Allegheny (Pa.) Preparatory School

Com'r ANDREW S. DRAPER, Education Department

Necrology (read by Sup't LEIGH R. HUNT, Corning)

CHARLES W. BARDEEN, editor *School Bulletin*, Syracuse

Duties of Convocation Council

Dean JAMES E. RUSSELL, Teachers College, Columbia Uni-
versity

3d session, Tuesday afternoon, June 28, 3 p. m.

Higher education, in Assembly parlors

Regent T. GUILFORD SMITH presiding

Should the Regents Register College Courses as the Equivalent
of the First Year in the Medical School?

Regent ALBERT VANDER VEER

Should the Regents Register Combined Baccalaureate and Medical
Courses of other States?

Dean WILLIAM H. WATHEN, Kentucky School of Medicine,
Louisville

What the Independent Colleges Think

Pres. RUSH RHEES, University of Rochester

What Minimum Requirements should be Prescribed for Admission
to Medical Schools?

Dean CHARLES H. FRAZIER, University of Pennsylvania, Medi-
cal Department

General discussion

Pres. BOOTHE C. DAVIS, Alfred University

Sec. EGBERT LE FEVRÉ, University and Bellevue Hospital
Medical College

Regent ALBERT VANDER VEER

Suggested Changes regarding the Administration of the Veteri-
nary Statute

Pres. JAMES LAW, Veterinary Council

The Education of Nurses

Pres. SOPHIA F. PALMER, State Board of Nurse Examiners

Secondary education, in Senate chamber**Regent ST CLAIR MC KELWAY presiding****The Future Development of Examinations****Dean JAMES E. RUSSELL, Columbia University, Teachers College****Underlying Principles of Syllabus Revision for 1905-10****Sup't FRANK D. BOYNTON, Ithaca High School****Fundamental or Culture Subjects Essential to all Secondary Courses****Sup't A. W. ABRAMS, Ilion High School****Secondary Subjects Essential to Professional Students****Dean WILLIAM M. POLK, Cornell University Medical College****Dean FANEUIL D. WEISSE, New York College of Dentistry****Prof. GEORGE A. FERGUSON, College of Pharmacy of the City of New York****Elementary education, in Assembly chamber****Regent DANIEL BEACH presiding****The Functions of a Normal School****Prin. C. T. MCFARLANE, Brockport Normal School****The Function of the Teachers Training Class or School****Sup't S. R. SHEAR, Kingston****General discussion****Inspector WILLIS D. GRAVES, Education Department****The Lack of Connection between the Work of the Grammar and High School****Prin. C. H. WOOLSEY, Poughkeepsie High School****The Revision of the Curriculum from the Standpoint of the Elementary Schools****Sup't THOMAS R. KNEIL, Saratoga Springs****General discussion****Director GEORGE A. LEWIS, Syracuse Training School****Prof. WILL S. MONROE, Westfield (Mass.) Normal School****4th session, Tuesday evening, June 28, 8 p. m.****Qualifications for Teaching not Determined by Examinations****Pres. WILLIAM J. MILNE, New York State Normal College****Address, The True Expansion of the Empire State****Regent CHARLES A. GARDINER***Adjourned*

APPOINTMENTS

Convocation council. By appointment of Prin. Howard Conant to succeed Prin. Floyd J. Bartlett, the council for 1905 is:

1905 Prin. Myron T. Scudder, New Paltz Normal School

1906 Dean James E. Russell, Teachers' College, Columbia University, New York

1907 Sup't Darwin L. Bardwell, Borough of Richmond

1908 Prof. George P. Bristol, Cornell University

1909 Prin. Howard Conant, Elmira Free Academy

College council. By appointment of Pres. C. H. Levermore, Adelphi College, to succeed Pres. A. Cameron MacKenzie, the council for 1905 is:

1905 Pres. George E. Merrill, Colgate University

1906 Pres. Rush Rhees, University of Rochester

1907 Pres. Almon Gunnison, St Lawrence University

1908 Chanc. James R. Day, Syracuse University

1909 Pres. C. H. Levermore, Adelphi College

Academic council. By appointment of Prin. J. H. Conroy, to succeed Prin. John F. Glavin, the council for 1905 is:

1905 Prin. George A. Brown, Riverhead High School

1906 Prin. Edward J. Bonner, Dansville High School

1907 Prin. Frank S. Fosdick, Masten Park High School, Buffalo

1908 Prin. W. B. Gunnison, Erasmus Hall High School, Brooklyn

1909 Prin. J. H. Conroy, St Mary's Academy, Ogdensburg

Library council. By appointment of Miss Caroline M. Underhill, librarian Utica Public Library, to succeed Miss M. Emogene Hazeltine, the council for 1905 is:

1905 James H. Canfield, librarian Columbia University

1906 H. L. Elmendorf, superintendent Buffalo Public Library

1907 Frank P. Hill, librarian Brooklyn Public Library

1908 Arthur E. Bostwick, librarian New York Public Library

- 1909 Miss Caroline M. Underhill, librarian Utica Public Library

Medical council. The medical council appointed for 1905 is:

1905 Dean M. Belle Brown M. D., New York Medical College and Hospital for Women

- 1906 William Gilman Thompson M. D., Cornell University
Medical College, New York
- 1907 Dean George W. Boskowitz M. D., Eclectic Medical College,
New York
- 1908 Dean James W. McLane, Columbia University, College of
Physicians and Surgeons
- 1909 John L. Heffron M. D., Syracuse University, College of
Medicine

Dental council. The dental council for 1905 is:

Faneuil D. Weisse M. D., New York College of Dentistry
Charles Milton Ford M.A. M.D., New York Dental School
George B. Snow D.D.S., University of Buffalo, College of Dentistry

Veterinary council. The veterinary council for 1905 is:

James Law F.R.C.V.S., Cornell University, New York State Veter-
inary College, Ithaca

Alexander F. Liautard M.D. V.M., New York University, New
York American Veterinary College

Pharmacy council. The pharmacy council for 1905 is:

W. C. Anderson, Brooklyn College of Pharmacy
H. H. Rusby M. D., College of Pharmacy of the City of New York
Willis G. Tucker M. D., Union University, Albany College of Phar-
macy

Willis G. Gregory, University of Buffalo, College of Pharmacy

CONVOCATION COUNCIL

The executive session was held at 3 o'clock at headquarters with all members present except Principal Scudder, who was absent in Europe. Formal organization was effected by election of Principal Bartlett as president and Dr H. L. Taylor as secretary.

After informal discussion, it was recommended that

The Tuesday morning session begin promptly at 9.30 and close not later than 12.30. The Tuesday afternoon session begin promptly at 3 and close not later than 5.30.

That the time limit of the Tuesday morning session be strictly enforced; namely, addresses 20 minutes, discussions five minutes

each. That the leaders of the afternoon session have 15 minutes each, all others five minutes.

That the members of council in charge of the afternoon sessions notify individually the speakers of the afternoon session of this time limit, and that formal notice be given at the Tuesday morning session.

That a transfer be suggested to Mr McFarlane of his paper from the secondary section to the elementary and notice be made thereof.

That the secretary communicate to Commissioner Draper the desire of this council to confer with him regarding the future of convocation at his convenience, now or in the early fall.

ADDRESSES, PAPERS AND DISCUSSIONS

Monday evening, June 27

OPENING PRAYER

BY REV. WILLIAM FORCE WHITAKER D.D.

O Thou who art great and greatly to be praised and to be had in reverence of all Thy creatures, regard with Thy favor, we beseech Thee, those who are assembled in this convocation. To Thee all hearts are open, all desires known. Guide in the meditation of the heart and in the utterance of the lips, that in all things begun, continued and completed, Thy name may be honored and the welfare of mankind may be advanced. We thank Thee that the lines are fallen for us in such pleasant places and that we have so goodly a heritage. In our commonwealth and in our country we do rejoice before Thee. Deepen in our hearts the desire for righteousness, and let not the crown of our pride be as a fading flower. Make us equal to our high trusts, reverent in the use of our opportunities, just in the exercise of power, and generous in the protection of the weak. May the gains of industry be wisely employed, and all the uses of wealth considerate. May wisdom and knowledge preserve us, and justice guide us in our prosperity.

To this end, O God, be pleased to visit with Thy favor all those who are called to give instruction, and to govern in the work of

education in this State, in the school and in the academy, in the college and in the university. In Thy light may they see light, and aided thereby may they prove able ministers of Thine in giving righteous nurture; that our sons may be as plants grown up in their youth, our daughters as corner stones hewn after the fashion of a palace, our men and women well fitted for life's highest duties and holiest services. Bless this University and its officers, our State and its chief executive, our country and its president; and we will ever pray, "Thy kingdom come, Thy will be done."

Amen

ANNUAL ADDRESS

BY CHANCELLOR WHITE LAW REID

It has been made my duty, and it is certainly a privilege and personal pleasure, to call to order the 42d University Convocation of the State of New York; 42d on the list, but first in significance in the whole history of our annual meetings.

For this convocation follows immediately upon the unification of the State's educational system—the end of strife between wrangling departments and of controversy over divided powers. It assembles on the call of the constitutional body under whose supervisory care the State has now placed the whole work; and signalizes the operation of the State's decree for the coordination of all efforts, public and private, tax supported or not, primary, secondary or collegiate, for the proper training of the young in the greatest community on this continent, one free commonwealth of eight million souls.

Who can overrate, who can even estimate, such a responsibility? It is a commonwealth beside which Athens, when Pericles ruled it and it ruled Greece, seems petty; a commonwealth greater than Rome when from it the Caesars gave laws *urbi et orbi*; greater than Venice when she held the gorgeous East in fee, and was the safeguard of the West; greater threefold than this whole nation when it achieved its independence; greater than half the nations

of America today or many among those of Europe. Nay, this is measuring greatness merely by numbers. When you measure by material prosperity, by intellectual leadership, by political weight or moral worth, where, the wide world round, is this commonwealth surpassed? Does it not, in fact, grow in our minds, as we regard with filial pride and awe its imperial proportions, to something of the image formed by the Old Home in the seerlike eyes of John of Gaunt: this earth of majesty, this other Eden, this happy breed of men, this little world, this blessed spot, this earth, this realm—this New York!

This is the commonwealth that now summons you all to cooperate in your respective places, in advancing its highest purpose, for the care of its dearest and most sacred interests. The dignity, the value, the moral grandeur of such a work and such a responsibility beggar expression.

What New York pays for schools

What the State itself thinks this work is worth may be partly seen in what it pays for it. The State's solicitude for various objects may sometimes be gaged in the appropriations. Well, the State of New York pays more money for its schools than for any other one thing; five times as much for schools as for legislation; five times as much as for the courts, and all the machinery for the administration of justice; five times as much as for the improvement and repairs of highways, rivers, bridges and the like; nearly three times as much as for the Governor and all the executive officers and all the departments that crowd the State House and all the commissions that roam the State. In fact, you can not find an account on the books of your State Treasurer that equals his payments for educational purposes, without adding together the whole of the State's charities, along with its additions to the permanent investments for the insane. With all our talk about canals, the State spent last year less than two thirds as much for them as for schools—even when you count in the purchase of nearly a million and a half bonds for the sinking fund. Out of a total expenditure of 24 millions last year for all purposes, the

State spent over $5\frac{1}{2}$ millions, or nearly one fourth of all its money, for education.

That is far from telling or approaching the whole truth. I have been speaking only of those expenditures derived from state taxation. But the report of the late Superintendent of Public Education, Mr Skinner, gives also the local expenditures for the same purpose, and the grand total is thus swollen to proportions whose impressiveness can not be heightened by words. The State of New York spent in 1903 in all its multiform activities, outside of schools, only \$18,737,582. It spent on schools, including local, with state expenditure, \$43,195,914. The people of New York thus gave between two and three times as much for their schools as their state government pays for everything else, of whatever sort or description.

Is all this needed?

Is the task laid upon the State great enough to demand such an effort? Is the return sufficient to justify it?

To the first question no two answers could be had from this audience. The task is the most difficult faced by any state in the Union, I had almost said by any such community in the world. It is no less than to do what every one acknowledges must be accomplished through education, if it is to be accomplished at all—to assimilate the largest annual immigration this nation of immigrants has ever seen, coming more than ever before from alien races and lands where our conceptions of ordered liberty are unknown; and at the same time so to train our own rising generation that in spite of this dilution they may assume and worthily maintain the national leadership their fathers won.

Does the return justify this costly effort the State puts forth? By the answer to that we must all in our places be judged; and the vengeance of Heaven never reached more surely the man who put a profane hand on the Ark of the Covenant than will the lightning of popular wrath blast and shrivel the unfaithful official who is found betraying his trust to the least of these little ones.

Regents and the common schools

This is the first time the Board of Regents has had to do officially with common schools. We felicitate ourselves and you—we hope we may felicitate the State—on this closer connection of your chief educational authority with the most important of all our educational institutions.

People are apt in their haste to look upon these schools as the lowest stage of our educational effort. On the contrary, they are its crown, its climax, its ultimate. The common school, the free opportunity for every child of the Republic, did not, in educational evolution, precede the academy or the college. It came after both, came because of both, would have been impossible without them. The public interest in which it is born comes from them, its teachers come from them; it can have a soul only as the higher education breathes it in. The torch must be already flaming from which you are to pass on the spark to others. The glory of our academies and colleges is that they develop that popular appreciation which makes the common school system; and they render no more conspicuous service than in sending out from their normal schools and teachers colleges and elsewhere the trained men and women who worthily maintain and advance its standards.

The best thing in the unification ordered by the Legislature is just here. It teaches the real unity of all educational work, and promotes a closer relation, a more intimate sense of interdependence, between the great elementary school system of the State and the most advanced work done by any institution within its borders. To revert again to the old and well worn simile, it is but a single educational ladder by which you climb; its feet must stand on the ground, in the very gutter if you please, and every rung must be in its place, if you would scale the heights.

Fundamental principles

You will pardon me then, if, at this first convocation after unification has been achieved, I spend most of the few minutes more for which I may claim your indulgence in reminding you of some fundamental principles, almost axioms, that we should never

lose sight of in the common schools. There is nothing new about them; their importance is merely that they are everywhere and forever true.

We have seen that there must first be hights against which the educational ladder can rest. The exact point where the top of this ladder is supported may vary; but there can be no variation or uncertainty about the support for its foot. That is the vital concern. Unless the foot of the ladder is solidly grounded, the higher you climb the worse the fall.

"The three R's" without fads

First, then, we must insist that the common schools really teach, with a thoroughness not yet so generally attained as is needful, the three things that make the common basis for all subsequent work. Their pupils should learn, learn till they really *know* how to read, write and cipher. Until you make absolutely sure of that, let us have fewer frills.

You have not taught reading till you have made it at least accurate, automatic and as unconscious as breathing.

You have not taught writing till you have made it equally easy, equally exact, and besides have taught it without fads. Not only must the characters be legible, rather than obscurely elegant, but the words must be spelled as they are now spelled in English literature. No doubt there is a place in the scheme of the universe for insatiate reformers—even (*pace* our accomplished librarian!) for spelling reformers; but their place is not in the common schoolroom. Your business there is to teach what the literature of the English speaking world has accepted—not what the reformers think it ought to accept or even believe it is going to accept. Your warrant from the State, in this very groundwork of all learning, is not for teaching debatable things, contentious things, but the things now accepted and built upon, and embodied in our standards, and you are to teach others only when *they* have been accepted.

Again, just as nothing can take the place of an absolute readiness in thus reading and writing the English language, so nothing

can take the place of an absolute mastery of the multiplication table. The boy or girl to whom you do not give that in childhood, together with the common things it stands for, you are turning out into the world a cripple for life. If he can not add and subtract, multiply and divide with the readiness and precision of a machine, if this work is not instinctive and instinctively right, he will limp at every step in his whole subsequent career. But here again, I pray you, no fads—not even the metric fad. Teach the weights and measures the child will have to use in everyday life in New York today; and teach them thoroughly; but leave the weights and measures he may need half a century hence for a later period, if any, in his education. Keep the metric cranks out of the common schools. They are all most respectable people; and some of them so efficient that I speak of them with a certain awe. No doubt cranks, as they have been known to boast, sometimes make revolutions, and may move the world. All right; when they have made this revolution and moved our part of the world to the metric system, then use the money and authority of the State to teach the metric system to the children in the state schools. Till then concentrate your energies in teaching them better the weights and measures they have to use now; and don't send out so many pupils who do not know what part of a gallon a gill is, or how many yards long and wide an acre is, or how to measure the masonry in a 10 foot brick wall 18 inches wide, or a hundred feet of inch and a half hemlock boards.

Less abstruse arithmetic, etc.

Let us avoid the common mistake of striving for a foundation too big for the probable superstructure. When the child has mastered reading, it may or may not be desirable to carry him on to the best English literature and to the history of its development. When he has mastered spelling and writing, it may or may not be desirable to teach him shorthand and the etymologic reasons for different spellings of the same sound. When he has mastered the ordinary processes of ciphering, it is very likely to be undesirable to force him to spend years more on the mysteries of

double proportion, cube root, complex and compound fractions, permutation, exchange etc. All these have their place, but it is in an arithmetic which belongs at least to secondary education, if not later still. They are not a necessary part of the common basis which is indispensable for all subsequent training, and they often lead to needless discouragement at a tender age, and to a deplorable waste of time and opportunity.

“What is hard is wrong”

Let us avoid the mistake of thinking the things the child must learn are necessarily dry things. When the average child is not interested in your teaching there is something wrong with your methods. I would not go so far as a distinguished teacher of a former generation, who declared that whatever in education is hard is wrong, for you can no more take the need for hard work out of education than you can take it out of life. But the hard work in common schools that is useful is a hard work that arouses attention instead of dulling it, that tempts alert exertion and crowns it with success. The hard work that first puzzles and then bewilders and over and over again seems to stupefy the young brain has either been ill chosen or approached in the wrong way and from the wrong end.

Time enough to teach

Let us remember that the primary purpose for which the State engages teachers for its common schools is that they may teach the children of the State rather than collect statistics and keep books for the State. Quite possibly there has been a growing tendency to call for too much bookkeeping, too many kinds of records, too many and too detailed reports. If these are all necessary, perhaps it may also be necessary to engage bookkeepers to collect and record them; at any rate, let us leave our teachers time enough to teach.

No politics

Let us see to it that all our educational work, and especially the work of the common schools, is done on the basis of absolute fairness to all the people. You carefully keep a saloon a certain

number of yards away from a schoolhouse or a church. You are even more particular about other sources of possible contamination. But there is one thing not enumerated in the law which would damage the acceptable working of your common school system almost as much as these abhorrent and forbidden influences. Far be it from me to disparage politicians; no man can be a good citizen without being a politician. But whatever party he belongs to, it is reasonably certain that, half the time, nearly or more than half the people having an equal interest with himself in the common schools will be opposed to his party. Politics and political aims then can have no more business in the schoolroom or in the school direction than they have in the church; and, if the reorganized Board of Regents and the new Commissioner of Education understand themselves and each other and their opportunity, they are firmly resolved that their whole province is a realm in which politics shall never enter.

The scholastic coinage

Tomorrow afternoon you are to have an important discussion on certain plans for making it easier to get certain degrees. The competent and scholarly gentlemen who are to conduct that discussion may reach conclusions favoring these plans, and if they do they will no doubt have convincing reasons. But may I venture beforehand on their territory long enough to express the hope that neither in their discussion nor in any other under these auspices shall any decision be reached to call 50 cents a dollar, whether in your coinage or in your scholarship. On the contrary, I pray you, help the Board of Regents to resist the cheapening of degrees. Create a public sentiment that will make it impossible for any school, or even for a crowd of able and persuasive dentists, to appeal to the Legislature for degrees not to be extracted through the regular channels and after regular and competent examinations. Overvaluation in diplomas demoralizes like the overissue of irredeemable currency. Don't debase the scholastic coinage.

Examination papers

Another branch of the convocation tomorrow is to discuss the future development of the examination system. May I trespass

in advance on this field, also, far enough to express the hope that you may find some way for reducing rather than further magnifying the importance of mere examination papers as an unerring test of work? Of course, the general system of written examinations is of undoubted utility. Perhaps we may be pardoned for thinking that of the Board of Regents particularly valuable. Certainly no such system should be heedlessly or hastily disturbed. But in many cases, as at present used, it probably goes too far and is too rigid. The number of branches in which written examinations are required may perhaps be profitably reduced, if not also the number of such examinations in each branch.

In any case it will surely be an advantage when they can be made a smaller factor in a final determination of actual proficiency. The instances will surely be rare in which the continuous work through the term, where there are practicable means for ascertaining it, will not be found a guide to the real advancement of the pupil at least as accurate as the accidental good or ill showing in a 40 minute written examination, under the stress of unusual excitement or apprehension. Besides, the process of cramming for examinations has, at many institutions, been reduced by skilful practitioners to an exact science, wherewith they would deceive the very elect. It is not so easy to cram for a whole term; and, if done, it is at least more useful. Where possible, let us hope for progress rather in the direction of giving greater weight to the teacher's examinations from day to day throughout the term, and less to the written replies, feverishly dashed down on a short examination paper in 40 minutes on some dreadful day at the end.

What it is all for

And finally, may we all, in our several places, grasp the real extent of our duty and our opportunity. It is not confined to teaching things. The real purpose of the State in all its princely provision for the education of its children is not simply to see how many things it can make them know; nor should it be yours as loyal servants of the State.

Mere knowledge of things will not save the State and may not serve it. The most envenomed anarchists, the most dangerous

enemies of government and of the property and life it is meant to protect, are often among the most highly educated of men.

The real work of the common schools and of all schools, in its last analysis, is to be judged, not by what has been taught the pupils, but by what this teaching has made of them. To have merely created a scholar, that is not enough. What character have you builded?—that is the test. Does it show the old traits that under God created this commonwealth? Does it combine a profound respect for authority with an inextinguishable craving for free individual initiative—the Anglo-Saxon reverence for law with the American capacity for leadership in finding and seizing the opportunity? That is your task, if the New York of the 20th century is to make good in a magnificent prime the promise of her glorious youth.

UNIVERSITY PROBLEMS IN THE METROPOLIS

BY CHANC. HENRY M. MAC CRACKEN, NEW YORK UNIVERSITY

It is permitted to me to speak a congratulatory word tonight on behalf of the university and college presidents of the State of New York. Probably this privilege comes to me because I am now the eldest in service in this venerable company. In the name of the universities and colleges I congratulate the schools of New York on their new leaders, Chancellor Whitelaw Reid and Commissioner Andrew S. Draper. It is recorded by Plutarch that in a time of great public need the Romans elected Cato the Elder and Valerius to be their censors, because they were assured that these men would prove honest physicians to the body politic. We have here tonight our Cato and Valerius and are convinced that they will care skilfully for high interests of education in this commonwealth. Whatever American Plutarch may write our true history can not fail to do honor to the faithful leaders of education. He will say of them something like that which is recorded of the great Censor, that Cato never owed so much to the Roman people as the Roman people owed to Cato.

I am invited to speak tonight before our censors on University Problems in our Metropolis. I may name three principal problems.

The first university problem in the metropolis I shall name is the problem of number. How many universities are we likely to see established in the metropolis of America, which many believe is destined to become within the century the principal city of the earth? In answering this question I take no account of "one man" universities such as have been created here and there in our country by either the bank account or by the last will and testament of a single individual. A university like Leland Stanford or Clark University can not be foreseen. It is an unexpected, individual and perhaps arbitrary creation. It is not an occurrence provided for by any settled principle of evolution.

The two existing universities in the metropolis today are, on the contrary, the outcome in either case of conditions which were bound, according to the laws of historic evolution, to evolve a university organization.

Universities are symbols and embodiments of intellectual conditions. So cathedrals half a dozen centuries ago were not mere convenient houses of worship; they were symbols and embodiments of the thoughts and aspirations of the people. Take a given territory and population in Europe of the 12th or 13th century, and we find it was bound to have a cathedral. The people would have felt starved and hurt in their highest energies if they had not been permitted to build such a place of worship. The traveler through England, Germany, France, or Italy, can not but be impressed with the determined purpose of those centuries to express themselves as cities and communities in marvels of form and color, outline and magnitude.

This 20th century has more methods of expressing itself than the people of half a thousand years ago. Nevertheless, the necessity of expression constrains men to action. Let us grant that every considerable aggregation of 20th century people of high intelligence and education will seek some outward symbol and em-

bodiment of their aspirations, and, second, let it be admitted that there is no better expression of highest intellectual aspirations than the university, and we arrive approximately at an answer to the problem I have stated—How many universities are likely to exist in such a metropolis as New York? Just as many universities as are required to give every great division of the population its own channel of expressing its loftiest intellectual purposes and desires.

Every state west of New York has chosen a policy different from that of the Empire State. They have said to their people: Be content and express yourselves so far as the university is concerned through the government of the state. In case this does not fulfil your purpose as members of various creeds, express yourselves in denominational colleges. The State of New York and also the metropolis of New York, mainly because of their earlier origin, have never asked the state to provide their university. A century and a half ago, the metropolis being then a British colonial city with the Anglican church holding a leading position, resolved to express itself as regarded the higher education through a college which was in close sympathy with the Anglican church and with English notions. Hence was founded King's College, which after the Revolution became Columbia College. It was the college demanded by the New York of 150 years ago. It alone occupied the field of higher education for three quarters of a century. While its amended charter after the Revolution gave it a more liberal character and scope, yet it very naturally continued eminently to express the highest desires and aspirations of those who established it. One of its leading trustees, just 50 years ago, speaks as follows in a pamphlet entitled, *The Duty of Columbia College to the Community*.

The episcopalianism of the president and the form of prayer in the college had been secured not only by the charter, but by express conditions contained in the conveyance by Trinity church of the college site. The State had, therefore, neither legal right nor constitutional authority to dispense with these conditions; and for one I trust that the college will always respect, not only their

legal, but their fair moral obligation, and will honestly perform them in their true intent and purpose without diminution or evasion.

A similar law of evolution brought about the establishment of New York University. There sprang up 75 years ago a somewhat widespread resolve in the metropolis to establish a second university. The movement was not manufactured, it was a result of the two principles I have laid down: first, the highest intellectual expression of a community is the founding of a university; second, every large body of intelligent American population will sooner or later seek for such an expression—it will establish a university or college as a symbol and embodiment of its loftiest intellectual life. The non-Anglican half of New York city, who were both by force of law and of custom unable to express themselves through Columbia College, established a new foundation, at first called the University of the City of New York, which afterward was shortened to New York University. The platform of this university proclaimed it founded for all the community alike. The newspaper nicknames published at the time of its foundation show a party division. Those who wanted higher education wholly continued at Columbia were called “sectarians,” “patricians” and “monkish spirits.” The university men were named “radicals,” “disorganizers,” “a designing set of presbyterians and their dupes of other denominations.” In brief words, the one foundation was the expression of the conservative Anglican community, the other of the Scotch, Dutch, independent or puritan portion of the young city. At that time the protestant episcopal church was the leading body of Christians, possessing 21 churches. The presbyterians and reformed together had 39, while all other bodies taken together amounted to less than either of these two chief divisions of the population. I would say of the two divisions of the population of the people of New York three fourths of a century ago what Macaulay says of the two factions of English population when the Long Parliament first met in 1641:

The distinction that was then made obvious had always existed and always must exist, for it has its origin in diversities of tem-

per, of understanding and of interest which are found in all societies, and which will be found till the human mind ceases to be drawn in opposite directions by the charm of habit and by the charm of novelty.

I have shown thus how the two universities in the American metropolis have come into existence as the inevitable expressions of the intellectual activities of the two great sections of the community as that community existed 75 years ago. All this is familiar history to New Yorkers. It is a record that is most honorable to the little city of three quarters of a century ago.

What of the future? What of the next 75 years? Accept these three propositions which I have laid down: first, every considerable aggregation of 20th century people of high intelligence will seek to embody their intellectual aspirations in an outward symbol; second, the accepted symbol and expression of highest intellectual aspiration today is the university; third, the tradition and policy of New York are to favor only voluntary or private universities. At once the question presents itself—What great division of the people have not thus far expressed themselves in a university? I answer first the catholic community. The catholic portion of New York city would by itself constitute a city several times as great as the entire metropolis at the time when it first undertook the support of two universities. The four little churches of 1830 have increased in 75 years to 224. If we add to the diocese of Brooklyn the rest of Long Island, as is done in the catholic official statistics, and to the diocese of New York the one half dozen neighboring counties, there are altogether 375 catholic churches, 140 chapels and 45 stations. It is an increase of a hundred-fold in 75 years. This population was not here at the founding of either Columbia or New York University. The great flood of immigration from catholic Ireland, catholic Germany, and other great catholic regions, had not then begun. Today the second or third generation of this immigration is pure American. They are bound to find expression for the highest educational activity. If the ordinary law of evolution, which I

have presented, does not fail, a catholic university in New York city will come in the present century, it may be the present half century or the present quarter century. The elements of such a university appear already in the catholic colleges. There are reported in or near the Greater New York no less than five, St Francis and St John's in the borough of Brooklyn; St Francis Xavier, St John's and Manhattan in the boroughs of Manhattan and the Bronx. There is also St Joseph's Theological Seminary near by. Ordinary evolution might have been expected to produce the first catholic university of America in our metropolis of New York, rather than in the capital at Washington. The purpose of the Catholic University there, as officially announced, is "to afford an opportunity for pursuing higher studies in the most important branches of learning under the inspiration of catholic truth. Courses shall be such in quality and grade as befit a real university." A catholic university on such lines will be evolved in New York by the natural law of communities, unless some miracle prevent or unless there should be such a movement for a state university in New York city as would satisfy the cravings and ambitions of all divisions of the population.

Still another new element exists in the metropolis that is without a university. Seventy-five years ago, in 1830, there were, as nearly as can be estimated, only 2000 Hebrews in this part of America. The latest Jewish yearbook estimates that there are from 400,000 to 600,000 Jews in the entire State of New York and that over 70% of these are in New York city. This would give a Jewish population of at least 350,000, nearly twice the total population of New York in 1830. If we accept the highest estimate of the almanac, the Jewish population of New York today would make two cities as large as the New York of 1830 with several thousands to spare. It is as true of the Jewish as of the catholic people that they were not here when our universities were founded. There were not 10,000 Jews in the entire United States in the year 1830. The two universities were organized, as has been shown, to express the higher intellectual purposes and de-

sires of the two divisions of the people of New York at that time. Neither university, as appears from its past history, has ever thought that it could consistently invite either catholics or Jews to form a portion of its governing board. It would be incongruous for a university which is under a contract to elect a president of a particular Christian denomination and to maintain a form of worship of that particular denomination, to invite citizens who conscientiously reject such a denominational faith, to a responsible controlling office. In like manner New York University in its foundation ordinances recognized the Holy Scriptures of the Old and New Testaments as paramount. It designed to lay down a broad religious platform, but it was broad according to the views of the population of the city at that time. Unquestionably it was made protestant, if not puritan. The traditions and practices of three quarters of a century have preserved and fostered this original tendency. According to the law that like will produce like, it is hardly to be expected that the ultimate highest channel of intellectual activity and energy of either the catholic or the Jewish division of the population will find its expression in Columbia or New York University.

There will be, if the law of evolution holds, a great Jewish university planted in the city of New York. Recently a Jewish faculty of theology has been established on a broad and promising scale. Hebrews have already established a score of technical, agricultural or trade schools in the United States. Three of these are in the city of New York. Since more than one half of the Jewish population has arrived within 20 years, it is not to be expected that its university will take form at as early a date as the catholic university of the metropolis. It may be that half a century will be needed for the process of evolution that will establish it. But here again I predict that, unless the almost miraculous shall intervene, a Jewish university will arise. A Jewish university is more sure to come in the city of New York in the 20th century than a Jewish national government to be established in that time on the shores of Syria.

But is there not a demand, also, for a state-supported university in the great metropolis? Evidently the answer to this is "No," else such a foundation would have been made long ago. I have shown how private effort and energy have provided expression for the highest intellectual activities of the people. It is not only in universities that this is the case. It has become the deliberate chosen policy of the city of New York to favor voluntary effort and control in relation to other educational enterprises than universities. The Public Library of New York, while it enjoys grounds and buildings given by the city, is a private self-perpetuating corporation, receiving and expending large funds for the benefit of the community. So also are the Brooklyn Institute, the Museum of Art, the Museum of Natural History, the Bronx Botanical Garden, the Bronx Zoological Garden. They are every one voluntary corporations, wholly removed from politics, serving wholly without salary, laboring and giving munificently for the accomplishment of great ends. If this policy of private corporations, which yet receive favor and encouragement from the State, is found the best in taking care of brute beasts and inanimate plants, how much more expedient that it prevail in the matter of university direction. Universities, as I have shown, are channels for the highest intellectual activity. The highest and freest intellectual effort is forbidden in state universities. If any president of a state university in America should talk about certain political, economic and labor union questions as President Eliot of Harvard has talked on some of these matters, it would cost him his place before the end of a year. Still less does a state university president dare to speak his whole mind in the religious and theological field. He is the creature of a political election and lives and works with restricted freedom. This is true even in agricultural states that have only small cities. What would be the freedom of a university faculty in New York that depended on an annual vote of the city board of aldermen? The government of New York may safely support a city college both one for men and one for women. It may support an ideal college. It ought

to support an ideal college if it support any. It is a city of unlimited financial resources. It is not hampered as even the largest university is hampered by its comparative poverty. Nothing surprises me more than to hear citizens say, "You must not expect the city college to compare with the college at Columbia or at the University." As well say, "You must not expect Central park to compare with the park of a private citizen." When the city provides an article, it must provide the very best, it must provide the standard. As the government gives us a standard weight and a standard measure, it ought in New York city to give us a standard undergraduate college. It ought to make it such that all the other undergraduate colleges should be compared with it and should be gaged by it. Serious objections exist to the government undertaking a university when it can be avoided. The university gives a profession. To provide a man with a profession with which to earn a livelihood is very like giving him a stock of groceries or hardware with which to furnish his shop. Free tuition in law, medicine, engineering and the like is not needed for the securing of candidates for these professions. Time forbids to recount the strong arguments against our city attempting a university.

I come to the second university problem in the metropolis. The second problem of universities in the metropolis is the problem of content. What must a metropolitan university contain?

The definition of a university as a school where every subject may be studied is impossible, and, therefore, absurd. Rather, it is a foundation where one or more great subjects are investigated and taught to their utmost limits. The earth must be searched for truth on at least a few great questions, and the results must be generously imparted to inquirers in order to constitute a true university. Therefore, it is not an essential thing for the university to maintain an undergraduate college. The college is designed for all-round training, intellectual, moral and physical. This may be accomplished just as well on a separate foundation. Universities should not usurp the work of the 300 detached col-

leges of America. Possibly they might accommodate on their rolls all the youths now attending the latter. It would add only a thousand students to each great university. Such absorption of college students is the aim of some unwise universities. They offer, no doubt, some advantages. But can they give anything to take the place of what is given the freshman by the detached college? Acquaintance and daily contact with experienced professors? Care by the faculty for physical and moral well-being? Lively interest taken in the freshman by the college community? The opportunity for individual initiative and leadership?

The university should admit undergraduates in limited numbers only, should form them into a model college of arts and pure science that may serve as a suggestion and inspiration to detached colleges. By its undergraduate work it should emphasize the truth that all-round training is the highest occupation for youth till they shall have reached maturity at 21 or 22 years of age. It should deter them from specializing and from professional studies. Better that the university shut its doors on all save graduate and professional students and dismiss the others to the detached colleges, than that it pretend to be doing the same good work for all-round education as the latter, while it is in reality pushing undergraduates of 19 or 20 into a premature pursuit of a narrow speciality or of a professional degree.

The chief content of the university is graduate work and preparation for the liberal professions. In graduate work it has no competitors. No other school in the length and breadth of the land tries to lead a student up to the heights of philosophy or of pure science. There is large money outlay in exploring advanced fields of learning. For this reason, if for no other, it is resigned to the universities or to such a related foundation as the Carnegie Institution at Washington.

It is not so with professional training. The separate foundation is often attempted. It is quite the rule for schools of theology. The first aim of such a school is to train men for the ministry of the denomination. It is therefore best carried on by a

denominational agency. Yet so far as it is a school of theologic science, it needs the university atmosphere. I have heard a suggestion of a theological university. New York city possesses a theological university today. It has six faculties of theology, which are equipped to explore every field of theology and religion. The notion of consolidating them in a single faculty has an attractive sound, but is an impossibility. Suppose we bring together a faculty to teach every man his own theology according to his best light, protestant, catholic, Jewish, Mother Eddy, Joseph Smith, Buddhist, Moslem. It would prove a religious menagerie. It would not be a school for the promotion of religious thought or religious discovery. When among the Green mountains, I stepped into a local Sunday school and found it was a union affair. They were using an orthodox methodist lesson leaf on one side of the center aisle and a thoroughgoing universalist lesson leaf on the other. It was the best they could do in a little neighborhood, but I was not surprised to find little religious enthusiasm in that company thus separated into factions. Religion and theology that do not awake and sustain high religious feeling are dead and not living. You do not expect to foster warm affection, loving words and caresses and complete unbosoming of spirit in your home by inviting a dozen critics as your guests. You may just as soon learn the nature of God, which nature is love, by assembling a company of debating theologians at close quarters, everyone of them must be numbed or chilled by the presence of men who are bound conscientiously to oppose the beliefs that are next their own hearts.

Schools of applied science have done good work without university connection, but, in general, technological students should be gathered into university schools. The region of science is broadened when students view their own field in its relation to the borderland. He who pursues applied science is helped by his neighbors who are devoted to pure science, the student of commerce by his contact with the student of law, the student of pedagogy by his contact with the student of medicine.

It is a thing to be desired that every proprietary shop that dispenses law or medicine as a money-making scheme of its stockholders should be speedily reformed or obliterated.

In asserting a practical monopoly of professional training the university owes it to both students and teachers to keep its faculties in a thoroughly mobilized condition. Professors that can not march with the times must be dropped from the ranks. Professors that remain must be alert. The organization of each school must be shaped to secure the best possible teaching from the best obtainable teachers. The individual teacher must place the advancement of the school above his own advancement. Like the football eleven or the baseball nine, the university professional faculty must be a unit in all its team work. Plenty of opportunity will be given by every great university to its professors to show each his prowess as an individual gymnast, through press or platform or social effort.

An interesting fact is that the islands surrounding New York bay are regarded by some up-state universities as a place for colonization like the Philippine Islands. At least two up-state universities have established a colonization work in law or medicine. Even some out-of-state universities have talked of placing colonies on Manhattan Island. The wisdom of all this may well be doubted. An excellent motto right here would be, "Manahatta," as Washington Irving calls our city, "Manahatta for the Manahattanese."

Another part of the content of the university is provision for actively aiding the work of the public schools. Not till lately has this vocation of the university been recognized. The oldest university faculty of pedagogy in America, organized on a platform like that of faculties of divinity, medicine and law, was founded by New York University in 1890. The university needs a distinct pedagogic faculty to represent its care for the public schools. The success of such a faculty is not to be measured chiefly by the number of students which it gathers and instructs, but by its success as a propagandist of the best educational thought and as a critic of wrong educational practice. The uni-

versity, by means of such a faculty, may inform itself and instruct the public as to the condition of public education in the community. What other judge of the schools of city or state can be found more likely to be impartial? Those who are in the charge of the schools must be expected to uphold existing conditions as the best possible. Outside of teachers and educational boards we come to the individual citizen, and perhaps to the newspaper. But how meager is the information possessed by the most intelligent citizen or the most watchful editor in regard to the quality of teaching in the thousand schools of a great city or broad state! What is everybody's business is nobody's business. Few are really well informed as to the condition of education in any great community, except the leaders who are in charge of the system. If any competent criticism of their success is to be secured, it must come from those whose business it is made to examine existing conditions; whose talent and training enable them to form correct judgments, and whose position is so independent that they will speak out plainly and fearlessly in the interests of the people. Such a body of competent critics and friends of public education the university can and ought to offer in its faculty of pedagogy. If it can discover four or three or even two experts of first quality as to insight, lofty motive, wisdom, tact and power to impress themselves on the community, it will make itself of priceless value to our educational system. Under the inspiration and leadership of wise masters of educational science, the whole university faculty will constitute themselves a power for right theories and practices in teaching, such as otherwise they could never become.

The instructing of teachers in the highest subjects of pedagogic science is a part of the content of the university. By the undertaking of this work the university has done more to exalt the work of teaching into a profession than had been done for generations previously. It is doubtful whether the university should ever undertake the work of the average state normal school, which consists usually of two parts—first, teaching subjects which belong in large part to the high school; second, a little elementary

theory and practice of teaching. The normal students have not yet reached the age nor the culture to enable them to grasp the science of teaching; nor have they faced the difficulties that impress on mature teachers the need of foundation principles. The university will do well to limit its effort to gathering advanced students, mature in thought and age. These it may lead on into systematic study of the profoundest principles of education. Those who advance farthest and reach a prescribed goal ought to secure from the university a degree that will publish to the world that there is an upland to be sought and gained in the teaching profession. In presenting to the country a body of earnest teacher students, who seek the highest level, the university helps the entire teaching body throughout the Republic.

The third problem of the university in the metropolis and last which I shall name, is—What is the true spirit and motive of the university?

Without logical order, I answer philanthropy, patriotism and individual development.

In this day of vast business corporations there should be great educational foundations. The best corporate antithesis to materialism is the university. Church corporations, as has been proven by history, are more likely to be injured than helped by large material possessions, but history gives no case of a university permanently injured by great wealth. An investigation by the British Parliament proved that no trusts are so well administered as those for education.

It is not to the credit of our metropolis that both its universities are in great need of money. The almanacs give the approximate capital of 300 business corporations, most of which are centered in New York city, at over \$10,000,000,000. The thousandth part of this amount would more than supply the needs of the universities of the metropolis. The trouble is that the return promised by universities is unseen though eternal. I asked a rich man to give toward our new plant. He replied, "Do you furnish certificates of stock for every subscription?" I answered, "The moneys that come to us are given outright, the givers rely-

ing on the honesty and ability of our corporation." "That will not suit me," he said, "I must have a certificate of stock, for even though it pays no dividend, it makes me feel I have got something for my money." Such a citizen is blind to the return which comes to him as a patriot in the elevation of the nation or as a philanthropist in the elevation of mankind. Great souls give and labor for universities in part because of the good they receive for themselves in personal development. I asked our committee on nominations some years ago, "Might not Mr A be a help to New York University if made a trustee?" The member who knew him best answered, "I can not speak as to that, but I am sure that the university might be a help to Mr A." Mr A was elected to our corporation, and the help that he has been able to render has been equaled only by the development which has come from his university work in his own character and life.

Universities must have philanthropy as a motive; not religion-teaching philanthropy, this is pre-eminently the work of the church; not food-distributing philanthropy, this is better done by even newspapers; but thought-disseminating philanthropy. In this they should be the most independent and indefatigable agency. They owe no allegiance to political parties, they should speak without fear and without favor. Further every university should account itself a moral person. It has not only a brain, but a will. Unfortunately this has sometimes proven anything but a right will. Once on a time the great universities of Europe were tested by Henry 8th of England. He asked them to express their will on a question of law and morality. The sequel of the story, which is best told by Froude, was a shameful scandal. The universities—most of them—proved Judases and sold their decision to the highest bidder, and the bidder in each case was a political power. Such corruption in a university is unthinkable now. A university is called on to be purer than any other secular organization in the land. It must not be a whit behind the church in its high morality. Its decisions must be as far above suspicion as those of our highest courts. It must avoid

in its relations to sister universities the selfish methods tolerated in business and politics. Any association of universities in America that is not made on a public platform, with well defined conditions of membership, is unfit to exist. It partakes of the nature of a political "combine" and of the worst commercial practices. The transfer of leadership in universities from clergymen trained in the altruist atmosphere of church work to men devoid of such experience involves serious risk. I do not object to substituting the layman for the clergyman as head of a university when he is the wiser, stronger and better man. But he needs above all things to be the morally better man, because the university is a moral personality. We must make her such or keep her such. And the essence of morality is not reached when a university acquires strength, nor when it practises justice. It must also be good, doing generous things year in and out to the household of education and, as it has opportunity, to all mankind.

The university will not bring in the millennium in the 20th century; but it can do something to hasten it. America calls the university to a post of responsibility to which it has not been called by any nation till now. If it will take up its high obligation as a witness of what is right and expedient in the issues that are on us, and put forward spokesmen wise, fearless, tactful, eloquent, it will fulfil the high office to which it is called.

Tuesday morning, June 28

THE FUNCTION OF THE UNIVERSITY SCHOOLS OF PEDAGOGY

BY PROF. J. P. GORDY, NEW YORK UNIVERSITY SCHOOL OF PEDAGOGY

It ought to be a waste of words to insist on the importance of institutions for the thorough study of education. If education is, as we constantly assert that it is, a matter of supreme importance, then university schools of pedagogy must be among the most important of the institutions of the world.

But it is evident that this is not admitted even by the educated public. When such universities as Harvard, Yale, Princeton, Pennsylvania, Michigan, Cornell, Johns Hopkins, to say nothing

of others of less note, have schools for the study of law, medicine, commerce, engineering, mining, veterinary surgery and no schools for the study of education, they proclaim to the world in emphatic language that, in their opinion, it is more important for men to study the art of safeguarding the rights of property, the art of preserving and restoring health, the art of building bridges and tunneling mountains, the art of mining, the art of caring for domestic animals, than it is to study the art of living. For the function of university schools of pedagogy is nothing less than to study the art of living and the training by which the rising generation may be best qualified to practise it. The art of living—not the art of making a living, not the art of getting on in the world, not the art of achieving success in the usual acceptance of the term, but the art of living.

If any one says that there is practically a universal consensus of opinion on this subject and that it is, therefore, a waste of time to study it, I beg to record my emphatic dissent. The same divergences of opinion as to the art of living which were rife in Greece in the time of Socrates are rife now. And, just as the Sophists and the overwhelming majority of their contemporaries found the art of living in getting possession, so to speak, of the externals of life, as they concentrated their attention on having rather than on being, on the means of living rather than on living, on the tools of life rather than on the product, so do the vast majority of men in our own time even in the most highly civilized countries. That is why schools for the study of law, medicine, engineering, commerce, mining and veterinary surgery are so common, while schools for the study of the art of living are so rare. They are but the objectification, the expression in institutions, of the opinion that the material, physical side of life is the fundamentally important matter. Men are saying on all sides that the body is more important than the mind which alone gives it significance, and property than the life to which it is its only function to minister. Surely, if this opinion is false, society has no more important work than that of organizing institutions for the purpose of teaching what it is to live, and investigating the

means by which teachers may best help the rising generation to do it.

With this conception of a school of pedagogy, it is evident that the subject that has the most vital relation to its work is the history of education. What is it to live well? What constitutes a successful life? A man or woman with wrong ideas on this subject has no business in a schoolroom. If we bear in mind that the most of us get our opinions as we do our manners, by imitation, we shall see that the teacher with mistaken ideals of life is doing what he can to inflict a mortal wound on the most precious element in his pupils' lives. We shall see not only that no amount of scholarship, general ability, or skill in teaching will enable him to guard against it, but that the greater his attainments the more certain he is to do irreparable harm.

Now it would of course be absurd to say that the teacher can be saved from this by a study of the history of education. The teacher, like the rest of the world, for the most part, gets his ideals by imitating the ideals of those with whom he comes in contact. But, if he is to get rid of the ideals which are the result of unfortunate associations, he is most likely to do it by studying the subject under the guidance of one whose ideals are true and who has made a profound study of it. Now this is the central thing in the history of education. For the history of education is the history of ideals and of the means that were employed to realize them. What were the prevailing ideals of the life of the various city states of Greece before the time of the Sophists? What means were employed to realize them? What changes gradually took place in them? What elements of truth did they contain? To be able to answer such questions is to know the history of Greek education.

Moreover, a part of the work of the history of education is the intensive study of the masterpieces of the great writers of the world on the subject of life. Plato's *Republic*, Aristotle's *Politics*, various writings of St Augustine and Petrarch, Locke's *Thoughts on Education*, Froebel's *Education of Man*, Rousseau's *Emile* are all so many studies of the art of living—of the ideals of

life we should seek to realize, and of the means we should employ to realize them. Surely that "magnificence of conception," that ability to view all time and existence which ought to result from such a study, tends to lift one above the low, petty ideals that make so many lives sordid and mean.

There are, of course, many other contributions which the history of education can make to the work of a school of pedagogy. How suggestive, for example, to be reminded that the golden age of Greece was when music, Homer, and gymnastics were the chief subjects of study; that the period of Roman history which produced the men of most sterling worth was when Rome had no schools at all, and that, when the great aim of Roman education was to train the student to write silly little verses and make empty little speeches, the schools of the empire were generously supported by the state; that the two countries in the world which today most highly honor the educated man are Germany and China—Germany the type of progress, and China the type of conservatism and tradition. Furthermore, the history of education is a great storehouse of experiments as to methods of teaching and courses of study. I merely mention these things, not because they are not important, but because they are less so than the relation which the subject bears to the art of living.

There is another subject that ought to stand in the same rank as the history of education in the course of study of a school of pedagogy and for the same reason, and that is literature. Much of the greatest literature of the world is primarily a study of life, and the intensive study of carefully selected portions of it, Dante's *Divine Comedy*, some of Shakspeare's plays and Goethe's *Faust*, for example, ought to help the student to understand what it is to live.

Next to the history of education and literature, perhaps the most important subject in the curriculum of a school of education is psychology, and for three reasons. (1) The art of living, like every other art, presupposes an end to be reached. But our opinion as to what the mind may become depends on our opinion of its essential nature. If we believe that the thoughts, feelings

and volitions of a human being are the mechanical and inevitable results of the influences brought to bear on him, we are bound to think of him as one of the links in the vast enginery of nature, and education can not consider him as having anything to do with his own development. If, on the other hand, we believe that the mind is essentially active, then education has an entirely different problem to solve, the problem of supplying the mind with occasions of its own activity. We need to study psychology then in order that we may ascertain what the essential nature of the mind is, whether active or passive.

But (2) the art of living presupposes not only a knowledge of the end but also a knowledge of the means to be employed in reaching it. But a study of the means of education is a study of the capacities, impulses and tendencies which make education possible. These constitute what Dr Dewey has happily called the child's educational capital. The metaphor indeed expresses less than the truth. They are the child's capital in the sense in which we might say that the capital of a business man consists of his capital in the ordinary sense of the term and his brains. Evidently then, we need to determine as precisely and as accurately as possible what the child's impulses and tendencies are and what function each has in his development. What part have emulation, imitation, curiosity, the love of approbation, the fear of punishment, the esthetic, social, and constructive impulses in that development of a human being which is essential to the best life he can live? Are some of them to be repressed altogether or have all of them a contribution to make to it? If so, under what circumstances can they be most wisely stimulated into activity? Those are questions that a school of pedagogy should seek to answer, and for this reason it must lay great stress on psychology.

(3) But in order to deal wisely with the growing mind, the growing mind as such must be made a subject of careful study. A deal of nonsense has been perpetrated on a patient and long-suffering public under the head of child-study. Platitudes familiar to every observant mother since the time of Eve have been published in educational journals and heralded abroad as

great pedagogic discoveries. Nevertheless, there are many questions with a direct bearing on education that can not be answered without a careful study of the developing mind. At what age should the child be taught to read and write? When should he take up the study of geography and history? How long after he begins the study of history should he study it as a series of stories and biographies? At what point in his development can he be most wisely told the whole truth about the historical characters whom he has been taught to regard as heroes? What parts of the great literatures of the world, at the various stages of his development, can best contribute to the enrichment of his life? These are samples of questions that can not be answered by any *a priori* investigation—that can be answered only by a study of the living, learning, playing child itself.

In addition to the history of education, literature and psychology, anthropology and sociology should form a part of the required work of a school of pedagogy—anthropology because of the emphasis it will give to some of the conclusions of the history of education and psychology, and sociology because the school needs to be studied in relation to the other institutions of society. I have been much impressed since I went to New York with the profound changes that take place in the foreigners that come to this country. In alertness, quickness, general intelligence, those changes are undoubtedly for the better. But in reverence for man as expressed in the common virtues of courtesy and politeness, reverence for country as expressed in loyalty and patriotism and respect for law, these changes are as undoubtedly for the worse. Why is this? Is the school at fault? Is it due to the influence of American society? If so, what can the school do to counteract it? These are questions that need to be thoroughly investigated, for intelligence purchased at the expense of reverence is a costly article, one altogether too expensive for humanity to indulge in. Again, the various countries of the civilized world are taking it for granted that universal education is a good thing. Probably no one in this audience would question it. But will it not compel a profound readjustment of our economic relations?

I know a man in New York city with seven children in the public schools who works for about \$40 a month without board, and he is a type of tens of thousands. Is this normal and right? Will the education which such children receive be a gift for which they ought to be grateful to society? Has society a right to force education on its members without making such a readjustment of its economic relations as to make it possible for the so called lower classes to gratify the tastes created by education? Surely a school that undertakes to make a thorough study of education ought to attempt to answer such questions.

The last subject which I shall mention as entitled to a place in the required course of study of a school of pedagogy is what has been variously called the institutes of education, methodology, the art of teaching, etc. It has to do with the methods of teaching the various subjects of the school curriculum, their educational value, school management and organization and school hygiene. It is mentioned last in this paper because of the conviction, contrary to common opinion, that it is the last in importance of all the subjects that ought to be required in a school of pedagogy. Some of the courses usually given in this department, school hygiene for example, ought not to be given at all. They are pure information subjects, and the student should be required by a rigid examination to get them up for himself. The courses on methods of teaching doubtless have more value, but not so much as is ordinarily supposed. No amount of study of mere methods of teaching ever saved a teacher from mechanical, lifeless work. But, if he gets from his study of the history of education and psychology a vivid realization of the end of education and of the nature of the being to be educated, his work *must* be vital.

I believe that various elective courses ought to be offered in any school of pedagogy, of which I have time to mention but three: (1) a course in the nature of scientific evidence, in order that the student may realize what sort of evidence he ought to require for his beliefs; (2) a course in political economy, studying the relations between capital and labor; (3) a course in

political history, to make clear the real nature of the institutions by which we are governed, and the consequent duties of citizenship. All of these subjects have such a vital relation to the wise conduct of life that no teacher can afford to be ignorant of them.

THE CONTENT OF SECONDARY EDUCATION

BY PRIN. J. R. BRUBACHER, GLOVERSVILLE HIGH SCHOOL

The term secondary education is today receiving a variable definition in educational practice. At one extreme, stands the interpretation that secondary education consists of an eight year course of study, extending from the first high school year through the fourth college year. The opposite extreme interprets it as a three year high school course. Between these extremes, we find the three year college course; the two year college course; the six year combination courses which offer approximately two years of work in the liberal arts, in addition to the professional courses; and the entrance requirements of our various professional schools. From this it is evident that the time element in secondary education is no basis for a definition of our term.

Our esteemed Commissioner of Education has divided the educational body of our State into elementary, secondary and higher, and makes secondary education equivalent to high school and academy education. This definition has the merit that a single school provides this education. It presents external unity. But its internal phenomena lack this unity; for there is no essential difference in *content* or in *method* between the last high school year and the first college year. This definition, based on external features only, must therefore be unsatisfactory.

I believe that the *content* of secondary education must be the basis of its definition. What is the character of the content of this period of training? What is the purpose of secondary education? If we can agree on an answer to these general questions, we shall bring greater unity into educational usage.

But the content of secondary education as it is now practised, is reasonably no more constant than the time element I have

described. It presents every conceivable variety from the magnificent liberal education of our best colleges, to a high school training which consists of courses partly commercial, partly informational. To receive secondary education then, may mean careful training in the arts and sciences, or it may mean training in business methods together with haphazard work in history and a few sciences.

With this variable content and extent of secondary education goes an inevitable uncertainty as to the educational result. The professional school can not depend on the educational qualifications of its matriculate. The college can not accept without careful inquiry the work of the school or academy. One college or school is equally uncertain regarding the educational product of a sister institution. As a result, we have a multitude of examinations and re-examinations. To the student this variability is bewildering. If he prepares for the examinations of one college, and it becomes expedient at the close of his preparatory work to enter another college, he finds that he has done much work which college number two will not accept and has left much undone which is there required of him. To the teacher and the school this variability of content is equally disconcerting. It disorganizes their work and tends to make the program incoherent.

We must look, therefore, for some broad, unitary principle, which will so organize the content of secondary education that it will produce a definite result, a result which will be acceptable to those who desire to use it, be that the professional school, the university, the business man or the state. This will increase the efficiency of the school and powerfully react on our educational product, specially if we can at the same time secure external unity, unity in organization and uniformity of content.

In his monograph, the *American College*, Dean West says the first two years of college work "should be spent in perfecting the students properly in secondary education." That is, the first two college years should be devoted to the liberal studies, begun but not completed in the high school or academy. And he continues by saying that "*here*", the end of sophomore college year,

“the American college merges itself into the university”. This, I believe, is the clearest statement yet made on the subject. It sums up and interprets many discussions that have gone before. The deduction is forced on us that educational practice, with a considerable degree of unanimity, is beginning to recognize a six year period of secondary education, beginning with the first high school year and ending with the sophomore college year. The professional schools are willing to accept this, and the colleges and universities recognize it, whether consciously or unconsciously, for they devote the last two college years largely, if not exclusively, to technical studies.

The purposes of this secondary education are as follows: to prepare for technical and professional schools, such as engineering, medicine, law, theology, etc.; to prepare for industrial and commercial life; and to prepare for enlightened citizenship. This period of training must supply the foundation for each of the various vocations and professions. It must, in a word, make ready the foundational man, on which may be built the physician, the lawyer, the banker, the engineer. As the professional school gives that *specialized* training which is necessary in the various professions, so the secondary school must give that *general* training which is a necessity of enlightened manhood.

The secondary school must be the ultimate standard of culture. The professional man is broad or narrow, cultured or uncultured, according to the standard of culture awakened in him by the secondary school. The citizen is a man of cultivated feeling, broad sympathies, pure and high ideals of civic conduct according to this same standard of culture. The men and women who constitute the city, the state and the nation, will create their ideals of life in the home, and in their vocations by this same standard. The secondary school must make the mental horizon large or small, the content of life rich and varied, or poor and monotonous. The unitary principle of this period of training must be culture, culture so broad that it includes every side of the man.

The content of this education may therefore be confidently set forth. It must bring the student into sympathetic relations with

the past, with "man as he has been," by the study of ancient literatures and world history. It must give him large contact with his contemporary world by the study of modern foreign literatures and world politics. It must enable him to understand the laws and processes of nature, to come into sympathy with his environment, by the study of the natural sciences. It must acquaint him with the laws of his own being by the study of the mental sciences and ethics. It must equip him with trained powers of reason and sound judgment by the study of mathematics. It must give him an accurate use of his native speech and acquaint him with the body of thought treasured up in its literature. It must make him sensitive to all forms and expressions of the beautiful in nature and art.

This gives us a secondary program of literature, the physical sciences, mental sciences and ethics, history, mathematics, art and the English language. We can not here determine the proportionate allotment of *time* to each department of knowledge. It is essential, however, that each pupil be required to have thorough training in each department as a foundation. Now this foundation is complete only when it has given the student the methodology of each department and an index of the facts to be found therein. After the student has mastered the method and knows where to look for the facts, he may select additional work according to his special and individual inclination. This selective process gives rise to courses looking to the various professions, to industrial or commercial life, and so strikes a reasonable balance between culture for its own sake and its practical application.

Literature is national autobiography. Therefore we should select nations in much the same way as we select the subjects of personal biography. Greek for its origin of literary forms, art canons, scientific methods; Latin for its basic forms of government and law; Hebrew for its evolution of religious concepts; German for its classical spirit; its modern philosophy and art. Likewise in the sciences, physics may be taken as the basis of all scientific knowledge and method; geology for its practical appli-

cation to mining. In mathematics practical application may be made to banking, surveying, mechanics or insurance.

But the *basis* of secondary education must be broad culture. The subject-matter aims to educate the head and the heart. Every part of its content has direct and powerful influence on the esthetic and moral sense of the pupil. This is as it should be. But our applications and our methods must also educate the hand. Thus the laboratory method in the sciences must serve as a powerful means for manual training. In fact, I believe this may be made an efficient course in manual training. Only in cases where life has become abnormally artificial should it be supplemented by special manual training courses. Let us rather go to the physical laboratory, to the course in mechanics, for our manual training. I can conceive of no one course in the secondary school which may so completely educate the whole pupil as that in physics. It must teach him philosophy, art, science; it must, in truth, educate the head, the heart and the hand.

But what shall we say of industrial education? Theoretically the liberal and general training I endeavored to outline must be the substructure to the special training of the artisan in the same way as it is antecedent to the special training of the professional man. Under our scheme of government the artisan frequently becomes an administrator of the law or a maker of laws, and by his vote he is constituted a ruler. He must be made an intelligent ruler. The first necessity, then, from the point of view of the state, is this same general education which I maintain is foundational. And it may be made to contribute in large measure to the technicalities of the various trades in the same way as it contributes to the special training of the various professions. But beyond the general training thus provided, must come a distinctive trade school. This is a necessity. The artisan must receive the specialized training of his trade. But, owing to the distinctive and special purpose of industrial training, it can not be made a part of the content of secondary education. The same distinction must be made between secondary and trade schools that is now made between secondary and professional schools.

With this theoretic statement of the content of secondary education, let us look at the actual situation today. We have now no distinctively secondary school. The high school devotes its entire time to a partial secondary education. It does not give a complete secondary education. The college, on the other hand, divides its time between secondary education and technical education.

If the fundamental theory of this period of training is the making of the foundational man, *if* the content of this education is so universal, it becomes in a peculiar way the province of public education. We are not all lawyers, not all physicians, nor yet accountants. But we are all men and women. The state must be concerned with that part of the education of its citizens which is universal. Whether the boy chooses to become an engineer, or a physician, or a distributor of commodities, matters little to the state. That he become a man and a citizen matters much. Now, we are all familiar with the often repeated fact that a very small percentage of our boys and girls continue their training beyond the high school. They complete their secondary or general education, but do not get a complete general education. Let this paradox challenge our attention. The complete education of the citizen, the full provision for his fundamental educational outfit, is the first concern of the state, and must become the chief business of the public high school.

A complete secondary education should therefore be the ideal of the high school and the academy. Every revision of our program should draw one step nearer to this goal. Nothing will so quicken our work as the acceptance of the larger responsibility involved in such an expanded sphere of service. Moreover, nothing will make efficient returns to a generous public for its magnificent material equipment of school buildings save this complete liberal education. This very munificence proves that the public is ready to receive it. And in our own State, with its extended period of compulsory education, and the increasing number of fifth and sixth year academic diplomas awarded each year, the people are even now demanding it.

But the high school has today no well defined theory regarding its functions. It has no theory regarding the process of education. Its program has been constructed by the composite demands of the various college entrance requirements, and the demands of a severely practical *Zeitgeist*. The content of this program is therefore marked by radical distinctions, and so pronounced have these distinctions become that they threaten to perpetuate themselves in distinct schools. The classical high school emphasizes culture studies; the commercial and manual training high schools emphasize utilitarian studies. By unduly magnifying these distinctions the unity of purpose and the uniformity of the educational result will be destroyed. To offer an education of utility alone is an exaggeration; to offer one of culture alone is no less monstrous.

I advocate today a secondary education which is a complete liberal education. Its basis is culture, its methods and applications are practical. It insists on giving the method and index of each great department of knowledge as a foundation. It encourages the student's individual inclination toward a special field of usefulness. Its motto is, Thorough contact with *all* the branches of knowledge, large and intensive contact with a *special* branch. I advocate, furthermore, that this education be the program of a single school, and specially that of the public high school.

With this complete secondary education will come greater confidence in the educational result. The technologic school will find its matriculate well equipped with educational power as well as with the knowledge specially applicable in its field. The commercial or industrial corporation will find its young clerk endowed with imaginative and administrative powers as well as with the incidental technicalities of the ledger or the shipping room. The university will find its matriculate equipped with method, with broad scholarly aspirations, qualified to enter the freedom of university life, qualified to enter on a career of special research. High school and academy education will become a constant quantity.

IS IT DESIRABLE AND PRACTICABLE TO LESSEN THE NUMBER OF STATE EDUCATIONAL GATHERINGS?

BY DISTRICT SUP'T C. E. FRANKLIN, NEW YORK CITY

I am well aware that I shall say nothing this morning that is not well known to you all. I appreciate the fact that my function has been simply this—to have taken the time in advance to think out and marshal the principal points in regard to the question of the desirability and practicability of lessening the number of state teachers' gatherings. Thus those who are to follow will be able to give their opinions with a fairly full view of the facts and conditions of the subject under discussion.

I wish, therefore, briefly, to refresh your memories as to what are the purposes of such gatherings.

All would undoubtedly put first the opportunity for comparing methods and the degree of respective progress of those engaged in practically the same kind of work, thus not only measuring the value and advancement of one's own work, but also obtaining new ideas from those possessing greater originality or whose conditions permit more of experimentation.

Next in order, perhaps, is the stimulative advantage of social intercourse between those of the same profession. The benefit of this in many ways need not be dilated on before such an audience.

Another of the chief purposes and advantages of these gatherings is the opportunity afforded for bringing out those of special ability in various lines of school work, an opportunity advantageous not only to the promising individual but to those privileged to hear and meet such persons.

A still further advantage, not primarily contemplated by the organizers of such associations, but of considerable value nevertheless, is the opportunity given teacher and school board or agency, of meeting, sizing each other up, and getting points of information with a view to change of location, advancement, or opportunities better in other respects. Lastly, may be mentioned an advantage afforded particularly by national and state gatherings, i. e. the opportunities for educative travel at a minimum expense.

The main purposes of these gatherings having been thus briefly set forth, let us consider with equal brevity their relative importance.

It will be generally agreed that the last three mentioned, the bringing forward of persons of special ability, the opportunities for securing other positions and the promotion of educative travel, are subsidiary, arising out of the conditions of these meetings and are not necessary reasons for them. The first three mentioned, comparison of work, obtaining new ideas, and professional social intercourse, are the substantial reasons why teachers and school people should gather together at stated times.

Considering these in detail, it may be fairly stated that the closer and more intelligent state, city and town supervision, the greater amount of individual travel and investigation now undertaken, as compared with twenty years ago, the practice of "visiting schools" of other cities and towns, now so general among all classes of teachers, the greater number and lessened cost of pedagogic books and the improved character and diversity of similar periodicals all tend to reduce very much the necessity of frequent meetings, purely as a means of comparison of school work and of obtaining new ideas for the improvement of one's own special work. Indeed, it must be confessed that at most recent teachers' gatherings both these features have been pretty well crowded to the wall by the social intercourse and the time given over to conferences relative to better opportunities for employment and change of location.

Considering the point of the benefits of professional social intercourse, not only may it be safely said that it is overdone through having too many meetings and that it is thus weakening these meetings in respect to the other advantages for which they were originally organized, but it is equally true that this predominance is causing many thoughtful and helpful men in the work to remain away from the hurly-burly it engenders. It is a common experience to have men, who make a practice of attending most of these affairs, come back and say that, barring a pretty good time, the meeting did not pay them for the attendance.

Further, these state teachers' meetings have become so numerous that no one can attend them all and few can attend many, not only for financial reasons, but because they can not spare the time to do so. In consequence, we naturally find some of these dwindling in size of attendance and their very existence imperiled. The difficulty of getting up a first class program—one worth going to listen to—at any of them is pretty generally understood and acknowledged.

Let me now briefly recapitulate the annual educational meetings of New York State, as they occur, as well as the special purpose they are supposed to subserve.

In the fall is held the meeting of the State Association of County Superintendents and Commissioners. This is attended by many of the county commissioners and a few of the superintendents of the smaller near-by cities. Its function is mainly the discussion of matters affecting the rural schools. Shortly after, the State Council of City Superintendents and the State Association of School Boards assemble. The title of these organizations explains their work. At Thanksgiving time many secondary school men attend the conference of Colleges and Secondary Schools of the Middle States and Maryland. At Christmas there is a general hegira to Syracuse, where meet the famous Academic Association, the Training Teachers Conference, the Grammar School Principals Council, and at times the State Science Teachers Association. February brings the annual meeting of the Department of Superintendence of the N. E. A., which many of our co-workers attend. Easter week is the occasion of the meeting of many local associations, such as the Hudson River Schoolmasters, the Tri-County Association of Central New York, and others. June brings the annual convocation of the Regents of the University of the State of New York and early July ends the year with the gathering of the New York State Teachers Association. Interspersed at various times throughout the year are still other meetings of local associations, such as have been referred to, the number of which seems to be on the increase.

Looking the whole field over, it will be seen that there are but three of these occasions which are of general importance, i. e., the Syracuse mid-winter meeting, which, while not under one head, includes many departments of school work, the Regents Convocation and the State Teachers Association.

I think I express the situation accurately in saying that of all these meetings, the three live and profitable ones, from the standpoint of personal benefit and advancement for the schools, are those of the city superintendents, the mid-winter meeting at Syracuse, and the Regents Convocation.

The State Association of County Superintendents and Commissioners, if it has not seen its best days, has at least seen better days. Its gatherings would be just as successful and, I believe, more so, if made a part of a general winter meeting, under the auspices of the Regents, as I shall suggest later.

So too the New York State Teachers Association, which would seem to be so largely held together through the annual excursion which is made so prominent a feature of its meeting, and which requires so much booming to secure a good attendance, would have all its interests fully subserved by uniting with the June convocation of the Regents, specially now that the Regents have charge of all branches of school work and have at this very meeting given representation to the elements which have not hitherto been heard at its convocations. There seems to be no special reason either why the State Council of City Superintendents, admitting its great usefulness and splendid work in the past, should flock by itself once a year, or why it could not unite in a general scheme of state meetings in which all interests may be represented. The Thanksgiving and February meetings, being conducted by other parties than New York State school men, can not properly be taken into consideration in this discussion.

From what has been said already, it will be understood that the belief is entertained that the number of state school gatherings can and should be reduced. If it is urged that the frequency of these meetings keeps alive a more active interest and spirit than would otherwise be the case, I have to say that this purpose

can be and is being better accomplished by the many smaller local organizations already referred to. These are seemingly growing stronger at the expense of some of the larger ones. They are found to be more economical of time and money to attend, and those in attendance, not being overshadowed by the presence of the bigger guns of the profession, express themselves more freely and livelier, and often more beneficial discussions result.

My belief is that the ideal would be the holding of two general state meetings a year, these to take on the character of those held in the western states, i. e., a grand round-up of all school workers' from kindergarten to college, with a union meeting each night, listening to a good address by somebody worth listening to, live, active section meetings each morning, the afternoon being given over to social intercourse and enjoyment. My own idea is that both meetings should be under the direction of the Board of Regents, though there may be some advantage in having one of them a meeting which those with aspirations for leadership in the work might be allowed to run to suit themselves, and held possibly at some point, such as Syracuse, more convenient for the western part of the State.

Such meetings, with good and complete programs in every branch of the work, would bring together everybody with the proper interest in their work, and would be most stimulating and improving. The fact that they were held under the auspices of an organization of such dignity and independence as the Regents would do away with the alleged bickering and wire-pulling of some meetings which disgust so many and are one reason why many drop away to come no more. Contrast the manoeuvring, the wars and rumors of war, at Syracuse and at the state teachers meetings, with the quiet and dignified air which prevails and the businesslike management manifested at these June convocations of the University of the State of New York. The Regents too could yearly command the best state and national talent and thus balance and enrich programs as no individual organization can.

For my own part, besides the June convocation at Albany, I would hold the other great meeting at the Thanksgiving holiday time. Easter is too close to June, and the Christmas holiday ought to be given to real rest and travel or to attendance on such meetings or affairs outside the State as those having the means and desire may wish to participate in.

The Thanksgiving vacation is too short to go far afield to outside meetings, but is quite long enough for a good two days' round-up of the workers and a healthful discussion of the work in the schools of our State.

These suggestions, or most of them, can be easily carried into effect if those prominent in the various organizations manifest the proper spirit.

One of the obstacles to these changes will be the local influences where meetings have been customarily held, as at Syracuse, particularly on the part of the hotels. This consideration ought not to have any weight whatsoever. The fear that the importance of their work may be lost in the deliberations of a larger body may cause some of the smaller organizations to hesitate. But the character and record of the meetings of the Regents should be a guaranty that such would not be the case. It may be possible too that the unwillingness of some people to lose present or prospective prominence in the various organizations might be an obstacle to such consolidation. But this form of reluctance, even if it should develop, would not avail when once the idea of consolidation took serious hold of the members of these various bodies.

Another objection has already been adverted to. That is the desire to take advantage of meetings at various places for the purpose of educative travel and observation as well as for pleasure. Though the National Educational Association, with its main and side trips pretty well covers this ground, for those who want that sort of thing, such trips could be as advantageously arranged in connection with the June convocation at Albany as for Ithaca or Cliff Haven. There is no serious demand for such trips in connection with the usual fall or winter meetings, and,

as far as the State is concerned at least, the excursion element of teachers meetings seems to be losing ground and caste as well. The New York city teachers who have hitherto been most strongly attracted by this feature of the State Association meeting, thereby securing a pleasant outing and an opportunity of rubbing elbows with their up-state brethren, seem each year to find this feature less attractive. Indeed it would seem that the tendency to excursionize *en masse* is becoming pretty well played out in the United States, having been found unsatisfactory as to the pleasure and profit sought for. If this is true, then the point that the holding of teachers' gatherings in the same place each year causes a lack of interest and diminished attendance loses much of its force. But an irrefutable answer to this objection to meeting annually in the same place is the pronounced success of the Syracuse meeting and the Albany Convocation.

It is doubtless a fact that, were the suggested scheme adopted with but two general meetings a year, both at Albany, or one each at Albany and Syracuse, the latter in the early winter, there would cease to be much of an attendance of New York city school people at our state meetings, with the consequent loss of that acquaintanceship and intermingling of metropolis and provinces which must be helpful to both. However, I believe it certain that, as time goes on, the tendency of New York city in school matters to be in a measure sufficient unto itself, will of necessity become even more marked. I have hardly been in the service there long enough to feel entirely naturalized and do not speak from the standpoint of one of the indigenous, so that this statement does not proceed from any feeling of importance or self-satisfaction sometimes alleged to be characteristic of that city. But the amount of work to be done there is so great, the character and conditions of the work (more cosmopolitan really than American) are getting to be so different from the average locality in the United States and the necessary number of conferences and meetings so great, that but few can possibly have the ambition or desire, at the close of the school year, to go any considerable distance to hear discussions not particularly applicable to their

work and often but repetitions of what they have frequently threshed over during the year. There will always, of course, be those among our metropolitan co-workers whose zeal will prompt them to get back to the soil, so to speak, to find out what their brethren in other places are doing. But such as these will not need the attractions of excursion trips nor be deterred by the fact of the meetings being held annually in the same place. The improved character of the programs will rather serve to draw such people.

It may be said that the matter of amalgamating, or at least holding joint meetings, has been tried before and without success. It may be brought out that the State Association of School Boards has not been a success because of its practice of holding its meetings conjointly with the State Council of City Superintendents. We may also be reminded that the County Commissioners and Superintendents have found their attempt to meet with other bodies disadvantageous to their own organization. In these instances it was indeed the case of the more active organization overshadowing the less. Where all the organizations, however, are participating in a meeting controlled by a general head, which will try to adjust and balance meetings so as to give proper importance to all interests, the result which followed in these partial attempts at meeting together is not likely to occur.

We are all familiar with the stock arguments, that meeting in different places inspires greater community interest in the work of education and rouses the teaching force of the vicinity, that each of these organizations brings out and into activity an element that would not be otherwise reached and that the chance to view the schools at work in the various localities visited can be made a means of profit to those participating in the various meetings. These points have been at least indirectly covered in what has already been said.

This question of the consolidation of the various school organizations of the State is not a new one. It has been under discussion off and on for the past 20 years. It seems that it will not down. If it is ever to be inaugurated, now would seem to be the

acceptable time, when all the different elements of school work are friendly disposed toward the new State Department of Education and for this reason toward one another.

General discussion

Sup't Elmer S. Redman—I should like to say first that in the few remarks that I shall make I represent no one but myself. I have had no opportunity of consulting with my associates in the Council of City Superintendents. I do not know what they as a body of men think about this proposition. But, for myself, I am in hearty accord with the propositions laid down by the speaker concerning the purposes of these meetings. I believe that it is the purpose of an educational meeting to compare methods of work, that we come to these meetings to obtain new ideas, that they tend to promote social intercourse. But I believe that we accomplish these results better in a small meeting than we do in a large meeting. I believe that we as superintendents of the cities of the State gain more by our contact with one another, gain more by the informal interchange of ideas that we have been able to carry on in our smaller meetings than we would be able to obtain in the large meetings that have been suggested. During the few years that I have been connected with the State Council of School Superintendents we have had an attendance of from 80 to 100 men. We usually meet in a city where there are ample hotel accommodations, and in the lobby of the hotel we become personally acquainted with every other superintendent. We come to know that superintendent as a man and friend as well as professionally. We come to have confidence in his opinions. Our meetings partake more of the nature of a business meeting than of an educational gathering, and I believe that a superintendent is first of all a business man. When a fellow superintendent recommends to us a teacher, knowing that superintendent as we do, we have confidence in his recommendations, and confidence in his ideas along all lines of school work. It has been my experience in the large educational gatherings of the State in which formal discussions are carried on and formal

papers read, that the man who presents such a paper says what he thinks ought to be done rather than what is being done. Our Superintendents Council holds largely a series of experience meetings. The superintendents do not come there with carefully prepared papers, but they come full of ideas. Some of them come with the burdens of their work. They come to receive inspiration. Their fellow superintendents of more experience give ideas which are of great assistance to the younger men in the work, and I am sure that we obtain more benefit from these informal discussions, from this frank interchange of opinion, than we would in a large meeting.

As I said before, our meetings are largely of a business character. Among the questions that we have discussed during the last few years are these: "The Relation of the Board of Education to the Superintendent." That is a topic that does not concern the general teacher, but it does concern the superintendent. "What shall be done with the Semi-efficient Teacher?" This is a very important topic for a superintendent, possibly it is of some importance to the teacher; but where the teacher and the superintendent meet together is not the place to discuss it. The superintendents meeting by themselves can discuss such topics, and each one will obtain from their discussion a great deal of help. We have had the subject of visual instruction before the Council of Superintendents. As you all know, the State of New York has done a great deal of good along this line. Stereopticons have been furnished to the city and village superintendents of the State, and a great many slides have been sent out, which have been used for the education of the pupils, of the teachers and of the people. I believe that the Council of Superintendents of this State deserves the credit for this work. We have had a great deal to do with the passage and enforcement, or with planning schemes for enforcing the compulsory attendance law. These are not all of the topics that we have had before us, but they are a sample of the work that we have had to do; and I believe that the superintendents meeting by themselves can discuss topics of a kindred nature better than they can as a department of a great

meeting. The individual is lost in the great meeting, but at the meeting of superintendents, in the lobby of the hotel and in our informal discussions, we become acquainted with one another, we are able to get inspiration from one another and to accomplish a great deal of good; and I believe that, so far as the Council of Superintendents is concerned, it is better to continue in the way that we have been proceeding.

Prof. George P. Bristol—I do not know what my special excuse may be for speaking on this subject other than that I have it very much at heart. In addition to what has been said—and I must apologize for not having been able to hear the paper that was read—it seems to me that we may reasonably desire an association which shall be inclusive of all teachers in the State, of every grade in every part of the State, and which shall be independent. I admire the Syracuse gatherings for what they have achieved, for the way in which they do their business, and for the freedom and independence of all their discussions. I should object very much to anything which would lessen that influence which they have been and still are exerting in the State. But there is something else desired after all. A meeting of principals of academies and high schools and of principals of grammar schools does not take in a very large number of the teachers in both those classes of schools. I should like to see them brought together with the principals and with one another. Then too the superintendents are separate and are not included in these meetings. The academic principals and the grammar school principals are courteous and invite the college men and the other teachers of the State, and we appear there but under somewhat different conditions; we go as guests and we are glad to meet with them, but the association does not include in its membership all the various grades and kinds of teachers.

But one speaker says the real work is done where a few men engaged in the same kind of work get together and talk over their problems, and certainly it is important to have this direct communication and interchange of ideas. But there is something else. In a large meeting, though you can not do some things, you can do

others, and it is a great advantage, it seems to me, for a large number of teachers to see each other and to see themselves as a body. It adds to the impression of dignity and of importance if you can get 1000 or more teachers together and let them see themselves in a mass, and this can be done only in a large meeting.

The large meeting, the general meeting, is also a great help to those who live in isolated places. They have the inspiration of others, and the large meeting is the place where the man whom we all recognize as distinguished in education by his training, by his ability, by his position in the country, can speak to all, where all can hear. It is impossible for the smaller associations to command the presence of or an address from the most of such men. I think there are many things which make for the advantage of a general meeting which shall be inclusive of all teachers. It makes for mutual acquaintance, for mutual admiration, for mutual sympathy, for mutual understanding; and all those are things which we teachers need to have increased in us, that we may know one another better.

Then, it should be independent. I do not think that an organization representing all the teachers of the State or every kind and every grade ought to be in any way connected with the administration of the Department of Education. This, it seems to me, is an essential part of the problem, that we should have some meeting which is inclusive and independent. Just how this is to be brought about, I am not prepared to say. The general feeling is that one is called on to attend too many meetings; but I doubt that the present meetings can be made more than section meetings or meetings confined to one class or kind of teachers. My plea would be for one great inclusive, independent meeting in each year.

Com'r E. S. Comstock—It may seem from a general view that we have too many associations, but I believe that each association has its particular work and function to perform. That the associations could be grouped might be possible; but I believe that there is such a direct difference in the work which each is called on to perform that it would not work to the advantage

of the associations. The teachers' association discusses different questions from those of the superintendents. The academic principals' association does not care for the questions discussed by the school boards, and the commissioners' association is quite different from any of them. While some parts of their work coincide with that of the commissioners, yet the commissioner is called on to look after many things that do not enter into the work of any of the others. I think the commissioners' association is much like that of the superintendents. The commissioners gather together to talk over their troubles, trials and questions which they have to decide, and they gain a great deal of benefit from meeting together and alone. It is well known that the commissioner, next to the Commissioner of Education, has more power vested in him by statute than any other school officer. Many perplexing questions are constantly arising that must be settled; and the commissioner should use his best judgment and endeavor to avoid appeals. It is the aim of the Department of Education to have the commissioners settle questions so far as they can; and through these meetings one commissioner meets with another, talks these questions over and receives good advice. Sometimes they are enabled to act in such a way that their action will not be followed by an appeal. I would stand for the association meetings as they now are. I do not think it would be a benefit to consolidate them. The different meetings run along different lines. This is an age of special work, and I believe we are moving aright. The only thing to do is to put renewed interest into each meeting; and I do not believe that in so doing we shall make any mistake.

Prin. Howard Conant—I have just received this notice to speak and did not come prepared to say anything on this subject. There are a few points though that, from the standpoint of our association, the Academic Principals, might add some interest to the discussion; but, as Superintendent Redman has said, I am not authorized by our body in any way, shape or manner to say anything in reference to this subject.

What are the conditions in the State that demand a consolidation? Is there any need for such a consolidation? I may say that I have not heard the entire paper read by Mr Franklin, and so I am not informed in regard to all that he has said; but do we not now as a matter of fact have two meetings somewhat similar to those which the speaker has suggested—this convocation and the Syracuse meeting? This convocation is under the control entirely of the Regents of the University. Our meeting at Syracuse, it has been asserted, has in the past also been under the control of the University, though that was not so. However our minutes have been printed and probably will be by the University. In a certain way the University takes great interest in our association, yet it has no direct control over it, and I think perhaps it is advisable not to have all of our meetings under the control of the University of the State of New York. Is it not just as well that we have a meeting where we can go unbiased in our views by some educational body? Would not our discussions reflect too much the opinions of this body if we were controlled by it? Is it well to have our programs and our speakers chosen by the University? I for one would frankly be opposed to giving the Regents control of all the educational meetings of the State. I not only think there would be a narrowing effect on education, but think we have a more potent influence by keeping the meetings as they now are. The large meeting, as has been suggested, would naturally divide itself into sections, something after the nature of a three ring circus—we want to go to all, but we can attend only one at a time. That was tried two or three years ago in Syracuse. The Academic Principals Association divided the meeting into groups, but it did not prove satisfactory. A good many wanted to be in different places at the same time, and, not being able to go to one, perhaps they forsook all. So I believe it is better on the whole to have one meeting where we can hear all the discussions and all hear what is going on. If we had the large meetings, it would be necessary to have the room and the space.

Then, as a matter of fact, many different associations are already meeting in Syracuse; and next winter, I believe, another association is to be formed among the drawing teachers of the State which will have its meeting there at the same time. We have our general meetings, and then the different associations that are interested in different problems, the association of the training schools and of the grammar schools and of the science teachers, have their meetings without their being authorized or controlled by anybody. So I believe that what is proposed has already been accomplished, that we have a consolidation of meetings as it now is, that we do not need any legal form of unified meetings, but that we are better off as things now are. It might be well, and I think it would be desirable, if all the teachers and everybody interested in educational work could belong to some one organization, i. e. to the same organization; if we could have an organization of some kind, perhaps not so much one that held meetings as one that established relations between its members; if it were more of a professional body; if we had some organization of that kind, something that would unite us all, that would be my idea of a consolidation of interests, but to leave our meetings as they now are. The Syracuse meeting is certainly a consolidated meeting. This winter we expect to have in our program a closer form of consolidation than heretofore. The science teachers have been invited to take part in the discussions with the principals, and the grammar school association is also to unite at one session with the academic principals. So we are getting exactly what has been proposed so far as I have learned it; and I think it is better to work it out naturally than to force it in any way. I would not like to see any action taken here for the formation of meetings under the Regents for the reasons I have mentioned. A formal union may bring in discussion; the present discussion, union.

Prin. James Winne—While it is true that the problems which confront the superintendents are of vital importance to them and have but little interest for the average teacher, it is equally true that a large number of principals in this State are interested in

many of the superintendents' problems because their duties include supervision of the grades. Should the superintendents hold their meetings simultaneously with the other holiday conferences, undoubtedly many of the principals of union schools would find additional profit in the mid-winter meetings because they would attend some of the sessions held by the superintendents. It occurs to me that many of the more active teachers would become interested in problems of which their special work is a part only, and would be profited by listening to the discussion of the principles and policies under which they are working. More complete cooperation between the supervisor and the supervised would result. The simultaneous meeting of the several educational associations at Syracuse testifies to the fact that members of each association have interests beyond the confines of their particular association. This general interest of teachers argues for decreasing the number of state educational meetings at various times of the year by increasing, if it be found necessary, the number of section or class meetings. I should be pleased to see two state meetings, one in December and one in June.

Com'r Andrew S. Draper—I am moved to say a word or two on this subject, because I have the surmise that we have not yet really reached the crux of the matter. I do not think that we have yet in the discussion discriminated sufficiently between the purposes of the class meeting, i. e. the meeting of superintendents or commissioners or principals if you please, the meeting which gathers for self-instruction, for the consideration of office questions, and the other, the great public meeting which assembles for the discussion of educational outlook and policy, for inspirational and educational purposes purely or largely.

Now the fact is that this whole question comes up, I surmise, because we are appealing to too large a constituency for too many of these large meetings, and that we have consequent difficulty in providing a program for the large meeting which is attractive to a large constituency. I see no objection whatever to any number of class meetings in the State. I would not interfere in the least with the meeting of school commissioners, for example, in the

fall. No one is asked to attend but school commissioners. They do not care for the attendance of others, and that feeling is wholly creditable to them as well. It is not discreditable to them in the least. They want to get together for the purpose of talking over the functions and duties of school commissioners. They want to do it among themselves. They do not want the time taken up by people who are not school commissioners, who are not in touch with the school commissioner's work and have not the school commissioner's outlook and ambitions. There is no objection to that meeting or to any number of such meetings. Wherever there is a class of people in the State who want to get together for conference among themselves, it is highly desirable that their natural tendencies in that matter shall be gratified. It is the concern of no one else.

The same thing is true of the superintendents of the State. The thought of the Superintendents Council, as I have very good reason to recollect, was that it should be a quiet conference of the members. They determined to sit about a table and quietly, in moderate tones of voice, and without any of the tendencies which show themselves in large public gatherings, discuss questions of concern to superintendents. Now that is altogether proper. Nobody else is asked to attend. The results of those meetings are highly advantageous, and it is not a meeting that appeals to teachers at large at all. It is not the concern of other people. I see no objection to as many of that class of meetings as the different classes want to hold.

But now we come to the large assemblies, the meeting where we want to show force and strength and power and get the feeling which comes from the touch of elbows in the large crowd, from the feeling that there is strength and power in the teaching profession, and where we want to get the benefit of the words spoken by the prominent men in the educational work of the country, and spoken in the crowd. That is an altogether different matter.

I am possibly somewhat influenced, I must say, in my feelings on this subject, by the experience of the western states touching

their educational gatherings. In every one of the western states, I think without exception, there is a great state teachers association meeting at the holiday recess. In each of the central western states there will be from 1000 to 2000 teachers assembled at the state capital at the holiday recess, every one of them paying a dollar into the association treasury for the badge which is significant of the payment of the fee. It is held to be a matter of patriotism to make this little contribution and distribute the expenses of the gathering in this way. In this way a fund is raised that covers handsomely all of the expenses of a first class large meeting representative of the educational power and influence of the commonwealth. The influences of such great meetings on the teaching profession of the State are very great, very great indeed.

Now I have not come here, you may rest assured, to exercise any persuasive influence, much less any control, over such a question as this. It is one that is to be wholly decided by the teachers of the State. I will venture this much, however. It seems to me that aside from these class gatherings, referring to the Commissioners' Convention, the Superintendents Council, etc., aside from those it might be very well if we could have it understood that we would have two large gatherings in the State in the course of each year, one at the holiday recess and one at the close of the schools in the summer or about this time. Some remarks were made this morning about the control of these meetings by the Regents or by somebody else. These meetings are not to be controlled by anybody. That word, control, does not represent the feelings of the Regents or of the officers of the Department or of any one else, I am sure. There is no disposition to control it, but only to get it together, to work it up, to see to it that there is a program which is inviting to people and to do what they may in the way of preliminary work; and the more self-activity and self-responsibility the members of the convocation or of every other teachers' meeting in the State will assume, so much the better for education in the State and so much the more gratifying to the Regents and to the officers of the Education Department.

I can not see why it would not be advisable to follow the natural tendency of things which has shown itself in this State in connection with the holiday meeting at Syracuse, and gather together all the teachers of the State we possibly can for inspirational and educational purposes at that time under some sort of a general organization which would make certain that there were no conflicts in programs or conflicts as to the time of important addresses in the different divisions or sections; why there should not be some general organization which would be representative of all of these different classes that seem to want to come together at the holiday recess. In other words, I think, if the State Teachers Association were to move its meeting from the early part of July to the holiday recess and were then made representative of all teachers, of all the different factors into which the different constituent assemblages of such an organization naturally divide, that it would be a gain for popular education in the State, and that it would add power to the teaching profession. And moreover I have reason to believe that, if the State Teachers Association were moved to the holiday recess and organized in some such way as I have indicated, it would be of advantage to the University Convocation, because then we should not have these two state assemblages that are asking everybody to come, so close together and in such hot weather.

Now, Mr Chancellor, these are not questions to be hastily determined, but to be threshed out deliberately and in moderate tones of voice in the different assemblages, to the end that the natural feelings of people may have their part and the best course found. We shall have a great deal more of pedagogical strength and power in the State if we talk together mildly and discover our own views after full information is obtained, comparing views and letting the natural course of events take its way.

Just one word more. I should say that it would be good educational policy to have the convocation continue on about the same plan that it has always operated upon, namely, that it is representative of the institutions in the University, and that the management of it is to come from the men who are leading the

higher institutions of the State; but that invitation to it shall go to everybody. On the other hand, to have the common understanding that the State Teachers Association is representative of the great popular educational instrumentalities of the State of every kind and every description, as democratic as may be imagined, in the hands of people who are interested in every phase of educational activity and administration; and that invitation to that shall go to all who are in any way related with the educational work of the State; that it shall be a general muster and round-up of all the educational forces of the State. In that way we should have one meeting managed and directed and inspired by the men of the higher schools, and the other managed and directed by the great crowd from the middle and the lower schools, and we should find these two conventions agreeing in sympathy and drawing towards one another, and I am sure we should all be glad enough to have it so.

Professor Bristol—In order to give point if possible to our discussion this morning, I wish to move

That the Chancellor of the University be requested to appoint a committee of five to represent the University Convocation, to meet with similar committees which may be appointed by other educational bodies, to discuss and if possible to find a solution of this question.

Carried unanimously.

The committee appointed by the chancellor comprises Professor Bristol of Cornell, Superintendent Bardwell of New York, Dr William J. Milne of Albany, Principal Bartlett of Auburn, Superintendent Blodgett of Syracuse.

NECROLOGY

REPORT OF COMMITTEE, CHARLES W. BARDEEN, READ BY SUP'T
LEIGH R. HUNT

This year has been marked by a startling number of sudden deaths.

Thurston. Oct. 25, Prof. Robert Henry Thurston, of Cornell, director of Sibley College, died while sitting in his library, awaiting guests at dinner, on his 64th birthday.

Milne. Nov. 5, James Mollison Milne, principal of the Oneonta Normal 1889-98, after responding to a toast at a Masonic dinner, slid from his chair to the floor and died, with a smile on his face that never left it, even in his coffin.

Brownell. Mar. 23, Walter A. Brownell, principal of the Syracuse High School 1871-72, and a teacher there more than 30 years succeeding, died on his 66th birthday of self-inflicted wounds in the Middletown asylum for the insane.

Draper. Ap. 5, L. S. C. Draper, principal of the Ithaca Grammar School, was instantly killed by a train while walking on the railway track; and since then two other New York teachers have lost their lives in like manner.

Conklin. George A. Conklin, who had been school commissioner and for five years principal at Ravena, was killed by a train July 29, while crossing the track in a wagon.

On May 28, George Griffith, superintendent of schools in Utica and one of the most trusted educational leaders of the State, was drowned while fishing in an Adirondack lake. On June 23, Orlo B. Rhodes, just reengaged as principal at Adams, committed suicide by shooting.

North. In contrast with these shortened careers we have the fully rounded, loving and beloved life of Prof. Edward North, who passed peacefully from this world to another on Sep. 13, 83 years old. He taught Greek, but he taught also human brotherhood and kindly sympathy and how gracious a thing it is to be a gentleman. Besides his service to Hamilton College and to every student who entered it for 60 years, he was one of the pillars of this convocation in its early time, reading frequent papers, and for a long period presenting the annual reports on necrology.

In two other deaths that came almost together this convocation is specially concerned. Both men had been prominent in these meetings, one of them continuously for many years; and both were among those who founded and were presidents of the principals conference. Daniel C. Farr, who died Dec. 17, aged 56, had been principal of Glens Falls Academy since 1878. The

Rev. George R. Cutting, who died Dec. 29, aged 52, was principal at Waterville 1872-83, and of the Auburn High School 1883-86.

STATE OFFICERS

Smith. Of the Regents of the University, Carroll E. Smith died Aug. 21, known in his own city as a journalist and a local historian.

Hawkins. The Rev. Charles E. Hawkins, who died Aug. 6, aged 60, was principal of Ives Seminary in 1885, and school commissioner 1880-85, and succeeded Dr Watkins as inspector of teachers classes under the Regents.

Stout. Isaac H. Stout, who died Nov. 9, aged 57, was supervisor of institutes, and known as a conductor in nearly every county of the State.

COLLEGE PROFESSORS

Smith. Among college professors, Hamilton Smith, who died Aug. 1, aged 75, had been professor of astronomy and physics at Hobart 1868-1900, and since then professor emeritus.

Tiedeman. Dr Christopher G. Tiedeman, who died Aug. 25, aged 46, was dean of the Buffalo Law School.

Merkley. George Earle Merkley, who died Oct. 3, aged 37, was professor of modern languages and sociology at the Clarkson School of Technology.

Of former professors, Dr Egbert Guernsey, who died Sep. 19, aged 80, was for six years professor in the New York Homeopathic Medical College; and David Cole D.D., who died Oct. 20, aged 82, was for three years professor of Greek and literature in Rutgers College.

NORMAL SCHOOL TEACHERS

MacVicar. Of former normal school teachers, Malcolm MacVicar, who died May 18, aged 75, was principal of the Brockport Collegiate Institute from 1864 till it became the Brockport Normal, and then of that institution till 1868. He was afterward first principal of the Potsdam Normal, 1869-80—a man of character, scholarship and force.

Jewell. Frederick S. Jewell, who died Jan. 4, was a teacher in the Albany Normal 1854-68, and was subsequently frequently employed as an institute instructor.

Scott. Charles B. Scott, who died June 20, aged 43, was teacher of science in the Oswego Normal 1894-99.

A SUPERINTENDENT

Haskell. Among superintendents, Charles E. Haskell, district superintendent, New York city, died July 12, aged 45.

PRINCIPALS

Hoffman. Among academic principals only one death in the harness is reported. Lewis Wallace Hoffman of Rockville Center died July 22 of overwork. A noble fellow, generous to everybody but himself.

Of former principals, Marion M. Baldwin, who died July 13, was principal at Groton 1862-72; Dr E. M. Maynard, who died July 16, was principal at Trumansburg 1861-68; William R. Adams, who died Oct. 24, was principal of Lowville Academy almost continuously 1852-66 and 1874-90, afterward becoming a trustee, so that his connection with the institution lasted 62 years; Eben W. Cutler, who died in April, aged 27, was a year ago principal of Penn Yan Academy.

Several women of distinguished service may well be mentioned together. Miss Harriet A. Hamilton, who died July 4, aged 54, was a beloved teacher in the Cortland Normal; Charlotte Sophia Parish, widow of Dr Benjamin W. Dwight, who died Sep. 13, aged 76, was before her marriage principal of what became Ingham University, and of Brooklyn Heights Seminary, and after her marriage was associated with her husband in his teaching; Miss A. Louise Ostrom, who died Ap. 2, was principal of the Albany Female Academy 1869-79; Mrs Anna Cora Nickerson Mace, who died Ap. 28, was principal of the Catskill High School; and Miss Sabra L. Sargent, who died in Naples, Italy, May 22, was for many years preceptress of the Hornellsville High School, and had been since 1895 principal of Ferry Hall, Lake Forest University.

LOCAL OFFICERS

Among trustees and members of boards of education of distinguished service we name James Atwater, who died Dec. 19 in Lockport, where he had been first principal of the junior depart-

ment, teacher of mathematics, city superintendent, secretary and president of the board of education. John E. Pound of the same city, long president of the board of education, died April 21. Charles P. Leonard, who died in Lowville June 6, had been for nearly 20 years sole trustee of the village school.

A PATRON OF LEARNING

Colgate. James Boorman Colgate, who died Feb. 7, aged 85, had given more than two millions to the university that bears his name.

Dean James E. Russell—You will find on the second page of your programs, under the title "Convocation Council", five names. For some reason few of us knew that there was such a council or that we had any place on it. A question has arisen since we came to this meeting and some discussion as to what may properly be considered the duties and responsibilities of such a council. It has happened that during the last 20 or 30 years there have been many changes in policy. There was a time, I understand, when this convocation looked after its own affairs, prepared its own program and carried forward its program to execution. Of late years this has not always been the case. It has been even more than broadly hinted here this morning that there is difficulty in securing a proper representation not only of officers of institutions represented in the University but also of speakers who will properly represent the thought of the University and University institutions.

The Convocation Council have agreed to offer here a resolution asking that the Regents define the duties and responsibilities of the Convocation Council. We do not go into farther details because we recognize not only that this meeting brings together representatives of the institutions in various parts of the State, but that it puts us in touch with the Regents and the governing board itself. We ask merely that there be special instructions given as to the relations of the council, and for that purpose I move

That the Regents of the University be requested to define the duties and responsibilities of the Convocation Council.

This motion was seconded by Superintendent Bardwell and carried.

Higher education, Tuesday afternoon, June 28

**SHOULD THE REGENTS REGISTER COLLEGE COURSES
AS THE EQUIVALENT OF THE FIRST YEAR IN A
MEDICAL SCHOOL?**

BY REGENT ALBERT VANDER VEER

In 1902 an amendment to the medical laws of the State of New York provided that the Regents might accept as the equivalent of the first of the four full years of at least nine months each, including four satisfactory courses of at least six months each in four different calendar years of a medical school, evidence of graduation from a registered college, provided that such college course should include not less than the minimum requirements prescribed by the Regents for such admission to advanced standing.

At convocation in 1902, a thorough discussion of the requirements for admission to medical schools, including the combined baccalaureate and medical course, was participated in by representatives of both the medical and liberal arts faculties of representative New York institutions.

In continuation of the study a suggested outline was prepared and sent to many leading educators, both of New York and other states of the Union, to learn their opinion regarding the outline of subjects and their treatment during the first medical year, as follows:

Suggested outline

In registering the college courses for the allowance of one year in term of study it is uniformly agreed:

1 That the baccalaureate degree should meet the University ordinances now in force; that is, four full years of collegiate work subsequent to at least three years' high school preparation or the equivalent.

2 That the combined baccalaureate and medical degree should consist of seven full years of baccalaureate and medical work.

3 That the full equivalent of the present first medical year should be found in the college and high school courses.

Further in the various subjects the following outline of methods was offered :

Anatomy. Instruction 150 hours, laboratory at least 50 hours. The anatomy taught in the undergraduate college ought to include a thorough course in comparative anatomy, and should be a more definite course. Unfortunately all colleges do not teach it to the same degree.

If the student is thoroughly trained in comparative anatomy, it would seem possible not to introduce human anatomy beyond that which concerns the bones of the skeleton, joints, ligaments and the muscles as taught comparatively.

Biologic sciences. Instruction 150 hours, laboratory at least 50 hours.

Histology as taught in the medical schools is a very definite subject; it is not so well defined in undergraduate schools. The subject-matter of the histologic course should be definitely outlined, as it is impossible for students to take up this course in the second year, as human pathologic histology is introduced at that time in the majority of the medical colleges.

The textbooks on embryology are satisfactory and most of the courses in the colleges are beyond those given in the medical schools.

Histologic technic and microscopy. The work in the colleges in this subject is really beyond that given in the medical schools. The student will be well prepared in this subject.

Botany and zoology should also be included in the course of biology. *Materia medica* found in the curriculum of most medical schools can not be taught satisfactorily in college, but the student well grounded in botany can readily take up *materia medica* in the second year.

Bacteriology should be included in the college course. It should, however, be taught more definitely than at present. In the medical schools disease-producing microorganisms are studied, but it is not necessary that these should be used in college, as the principles involved in making culture media and growing microorganisms in the laboratory, and the life history, can be demonstrated as well on the simple forms as on those producing disease,

specially as this work is reviewed later in the curriculums of the medical schools. The end to be secured in the teaching of bacteriology in the college should be a thorough training in the technic and principles involved, which should include:

- 1 Instructions in the methods of making staining solutions and the preparation of the solutions in most common use in laboratory work.

- 2 The technic of making cover slips of the basic form of bacteria and the study of their morphologic characteristics.

- 3 The methods of cleaning and sterilizing glassware and nutrient media. The study of the effect of different temperatures on the growth of different bacteria, the method of making plate cultures, the counting, fishing and systematic study of colonies.

- 4 Systematic study of at least *six* organisms including their cultural and staining characteristics, the chemical products formed, and their resistance to heat and chemicals. Also the bacteriologic examinations of milk, air and water.

Chemistry. Instruction 150 hours, laboratory at least 50 hours.

This subject should include general chemistry (organic and inorganic), analytic (qualitative and quantitative), and medical toxicology and urinalysis. The medical need not necessarily be included in the college course. If a student, however, has had general chemistry in the high school and analytic in the earlier years of the college course, the medical can very properly be continued in the final years of the college course. From the medical point of view toxicology and urinalysis demand greater knowledge of physiology than the college student possesses, but the student thoroughly drilled in general and analytic chemistry will have no difficulty in taking up these subjects in the second medical year.

Physics. Instruction 100 hours, laboratory at least 40 hours.

This subject should be taught very thoroughly in the college or high school course, as medical students need to be particularly conversant with light, heat, electricity and kindred branches. This subject can be met in the high school course that has suitable laboratory facilities for individual work.

Physiology. Instruction 100 hours, laboratory at least 40 hours.

Physiology that should be taught in the college course will consist of elementary physiology, but it should be taught very

definitely. Courses outlined in Moore's *Elementary Physiology* or *Huxley's Principles of Physiology*, will be adequate.

The so called circular course of many medical schools in which half the subject is treated the first year and the remainder the following year, renders it impossible for a student to enter the second year well prepared in physiology. If the course of such medical schools can be reconstructed so that the first year in general physiology shall be an elementary course, leaving for the second year the consideration of human physiology in detail, the elementary course can readily be given in college.

Three questions were asked for specific information: (1) Whether the year's work is too severe for the majority of medical schools? (2) Whether the time devoted to instruction and to laboratory work is properly proportioned? (3) Whether the medical school could adjust its curriculum so as to admit to the second medical year graduates of registered colleges that present the full equivalent of the work outlined?

The letters were addressed to representatives of the independent colleges, the independent medical schools, the universities having academic and medical departments, and to prominent representatives of the medical profession. Many replies were received, from which the following extracts are made and grouped as they represent the four classes of correspondents referred to.

Independent colleges

President Stryker, of Hamilton College, writes:

Regarding our courses in the subjects named, you will nowhere find more thorough college courses in the physical sciences. A student can have 353 hours in biology, exclusive of sophomore year, 235 hours in chemistry, and 198 hours in physics. We can give a man all you ask and is called for.

President Merrill, Colgate University, says:

After careful consideration of these propositions there seems to be nothing unreasonable in the outline, and probably most college courses could meet all the requirements indicated. Our appointments, especially in biology, would have to be more complete than they are at present, but within a year or two we would undoubtedly be able to meet all requirements. The only grave difficulty would be the introduction of human anatomy in college curriculum.

Pres. Woodrow Wilson, Princeton University:

I am afraid I can give you no advice that will be of service. We do not believe in the principle of combining the baccalaureate and medical courses, and have not, therefore, studied out the proper details for such a combination.

Pres. H. C. King, Oberlin College:

Such a combination as the one suggested seems to be a good one, and one which well equipped colleges ought certainly to be able to meet. It is the kind of combination that seems to me not only practicable, but really wisest.

Independent medical schools

Dr J. H. Raymond, of Long Island College Hospital, referred the question to interested members of his faculty.

Dr John C. Cardwell writes:

I can see no reason why the course in physiology, as now given at our institution, can not be rearranged so as to harmonize with the plan suggested. An elementary course equivalent to those represented by either of the two textbooks mentioned could be easily substituted for the present course and a more advanced course could be given during the second year. For this latter course more time would be required than is at present devoted to second year physiology because the whole field would have to be covered instead of part of it as at present. One advantage of such an arrangement would be that the student, having during his first medical year acquired an outline knowledge of chemistry, anatomy and physiology would be better prepared for a detailed study of physiology, and, another, that having gone over the entire subject twice, first in outline and then in detail, at the end of his second year he would not only be more thoroughly prepared for the state board examination, but for the study of pathology and the more practical branches of medicine as well. I would suggest, however, that the time devoted to physiology during the first medical—or last college—year be the same as that devoted to anatomy and chemistry, i. e. instruction 150 hours, laboratory at least 50 hours. Physiology is a more complex subject than either anatomy or chemistry and involves some knowledge of both.

Dr William Francis Campbell, of the same institution, writes:

I approve of the course in anatomy, considering it a proper substitute for the course now given in our first year. It seems to me that such an arrangement is a distinct gain for the student without in any way detracting from the curriculum now in vogue.

Dr E. H. Bartley, of the same faculty, says:

I heartily approve of the plan, regarding such a course in a well equipped college as an excellent preparation for the study of physiological chemistry, toxicology, and urinalysis in the second year of the medical course. I have long wished that such a preliminary training in chemistry and physics would be required of all matriculants.

Dean Albert Vander Veer, Albany Medical College:

1 Is the work too severe for the majority of medical students?

No.

2 Is the time devoted to instruction and laboratory work properly proportioned? It is all right.

3 Can your medical school adjust its curriculum? It is going to be very difficult for us to arrange the subjects of anatomy and physiology, but these are conditions that will arrange themselves in due time. There must be a concession on the part of colleges as well as medical schools, and this question will have to be studied with a great deal of care. I admire the caution but firmness with which you are handling the question.

Dr Willis G. Tucker, Albany Medical College:

I have never favored the change in the law nor deemed it practicable to combine these courses of the first nor of any other year. I do not believe it will ever work satisfactorily except in such universities, or colleges called universities, having medical and other departments in the same place, arranging to admit senior students in college to the medical school where they can take the essential subjects of the first medical year as electives. Our studies of the first year are all technical or taught so.

A good knowledge of elementary physics, some knowledge of Latin, and, at least, one modern language, are certainly very desirable, but these studies can not be substituted for other things which are essential. In all this, I am speaking for myself, and have not been instructed to speak for our faculty.

Dr H. C. Gordinier of the same college:

I am in sympathy with the scheme whereby a student can secure his combined degree in seven years. I am, however, of the opinion that no change should take place in the present curriculum of the medical schools, but that the initial change should occur in the colleges. I believe that the latter should so arrange their work that the student who is desirous of studying medicine could study along those lines best adapted to his future welfare, taking up the natural sciences, botany, zoology, mineralogy, physics, comparative anatomy and allied subjects, together with the languages, Latin, German and French.

The course in Albany is a circular one requiring two years for its completion. This has given eminent satisfaction and it would be difficult to rearrange it. I believe the problem is best solved by so arranging the academic course for those desirous of studying medicine that the fourth year could be devoted to the first year's work at the medical colleges.

Dr Joseph D. Craig, Albany Medical College, professor of anatomy, expressed himself as follows:

My course of instruction covers a period of two years, and I am heartily in favor of the plan suggested of combining the first year of medical college instruction with that of the fourth year of the undergraduate college, but believe it can only be accomplished in such institutions as have a medical department.

Universities

Pres. J. G. Schurman, Cornell University:

It seems to me there is more need of extension of work from four to five years than of the substitution proposed.

Dean William Polk, of Cornell University Medical College, New York city, communicating the action of the faculty of that school to President Schurman, writes:

We most heartily agree with the first part of your requirements that the course include the studies of the first medical year, but the alternative of accepting in place of this work in general biology, physics, Latin, French or German, we are convinced is a mistake. You should secure the consensus of opinion among educators. If a prospective physician is to have his M.D. degree course shortened, it should not be merely on the basis of an A.B. degree, for the latter may have been acquired entirely by studies in the humanities. There should, of course, be a criterion and I conceive it would be for the Regents office to establish it. If one year is to be deducted from the eight now required for the baccalaureate and medical courses, it should be taken from the undergraduate and preliminary training and not from the professional and technical school, whose curriculum is already overcrowded. A so called equivalent in comparative anatomy is not satisfactory, as no amount of animal dissection is equivalent to human dissection.

With that consistency and liberality of thought that has ever characterized his work, President Hadley, of Yale University, in a careful study of his addresses, conveys the idea of his firm belief in making the course of the fourth year man in college an elective

one, while strictly adhering to the principle of a full four year undergraduate course.

It will be noted that all answers are of one opinion, namely, that the work is not too severe for the first medical college year.

Dean H. D. Didama, college of medicine, Syracuse University, and the instruction committee, are of the opinion :

That the full equivalent of the present first medical year can not be found in the college and high school course. This university provides a joint baccalaureate and medical course of seven years. The subjects of histology, embryology, and chemistry in the college of liberal arts are accepted as the equivalent of those in the college of medicine, but students pursuing the joint course are required to take the subjects of anatomy and physiology in the college of medicine. It would not be practicable to expand these courses in the college of liberal arts to compare with those in the college of medicine. To reduce these courses in the medical school sufficiently to correspond with such courses as could be given in the undergraduate college, would, in our opinion, weaken the medical course. If either course is to be shortened for the benefit of the other, it should be the baccalaureate not the medical. If it is desirable for students to complete the two courses in seven years it might be accomplished by segregating colleges conferring the degree of A.B. at the end of four years upon those of their students who enter a registered medical school after three years in the baccalaureate course, and present credentials of satisfactory work at the end of the first year of the medical course.

Does not this come nearer to a solution of the question, because of their different departments?

Dean W. L. Richardson, Harvard University :

We only admit to advanced standing in this school graduates of recognized colleges, technical or scientific schools in which courses in human anatomy, human physiology, physiological chemistry and human histology are part of the instruction. Such candidates, however, are required to pass an examination in these subjects. Students who can finish, or practically finish the requirements for a degree in three years, which usually takes four, but prefer waiting until a later period for graduation, in order that they may graduate with their class, may be admitted to this school with the understanding that their degrees will be received the following year.

Dean Herbert E. Smith, medical faculty, Yale University :

1 The year's work is not too severe for any medical school to which college graduates would be likely to go.

2 The proportion of laboratory work is less than we devote to analogous subjects, but as the relation depends so much upon the method of the instructor, I can not see how a fixed proportion can be adopted.

3 It does not seem practicable to change our curriculum, so that a student who had only the preparation outlined would enter our second year with heavy conditions. I am heartily in accord with the plan to admit to our second year such students as have covered the subjects of our first year's course in a satisfactory way. We would be glad to see you adopt a regulation permitting the recognition of academic work. Doubtless the scheme you present is, on the whole, satisfactory, but we should have to modify it along the lines which I have indicated.

Dean Charles H. Frazier, University of Pennsylvania:

1 First class medical schools willing to admit students to their second year should not regard the specified requirements as too severe. We suggest, however, that "microscopy" as a separate subject, be omitted, since this vague and obsolete term has a doubtful place in biological science.

2 The required hours (50) of laboratory work are inadequate to gain by practical exercises the necessary first-hand knowledge in the various branches included under biologic studies.

3 Three years ago this school recast its curriculum adopting the "semiconcentration" system, whereby a more logical sequence of the subject was secured—the first year of the medical course being devoted to chemistry, anatomy, and bacteriology, as preparatory to physiology and pathology in the second year. The chief and most serious deficiencies are in chemistry and human anatomy, since the first of these subjects is completed, and the last covers all of systemic anatomy, with the exception of the central nervous system and the organs of the special senses.

Dean V. C. Vaughn, department of medicine, University of Michigan:

1 The year's work is not too severe for medical schools.

2 I do not think the proportion between hours devoted to instruction, by which I understand recitations and lectures, and laboratory work, is good. Personally I should prefer to see the number of hours given to each of these divisions reversed.

3 I do not think it would be possible for a student, having taken the course as outlined in some literary school, to finish his medical work with us in three years.

Dean John M. Dodson, Rush Medical College, Chicago:

From the point of view of this institution it seems to me your board has undertaken a difficult, if not impossible task.

Dean Parks Ritchie, college of medicine and surgery, University of Minnesota:

1 The work is not too severe for our school.

2 The work laid down is not nearly the equivalent of the work done in our laboratories, nor do I believe that anatomy and bacteriology will be sufficiently taught in a nonmedical school.

3 Even if we were inclined to admit the A.B.'s to our second year, our State Board of Examiners would not permit it.

Dean A. C. D'Ancona, medical department, University of California:

1 The proposed first year's work is not too severe for the majority of the schools.

2 The time devoted to laboratory work is not sufficient.

3 This department will not admit to the second year graduates of colleges presenting the equivalent of the work outlined. There is only one circumstance under which advanced standing will be given, namely, where the student has had in a recognized institution at least the equivalent of nine hours per week of microscopic anatomy for 26 weeks; 24 hours per week of osteology and systematic anatomy for 27 weeks; four hours per week of physiology for 18 weeks. All of the above must be practical work in the laboratories.

Representatives of the American Academy of Medicine:

Dr A. L. Benedict—I may be pardoned for urging the importance of Greek as a basis for medical study, on account of the tendency to use this language in technical vocabularies. In the investigations of the American Academy of Medicine there has been developed a seeming divergence of interest between the universities and segregated colleges, graduates of segregated colleges being at a disadvantage on seeking admission to advanced standing in medical schools.

This difficulty could be done away with by a preliminary summer course largely of laboratory instruction which would be sufficient to add the technical details of urine, blood, gross anatomy, physiology, etc., provided the student had had a general preparation along these respective lines.

Dr Charles McIntire, secretary, American Academy of Medicine, and editor of the *Bulletin*:

1 I can see no reason why it should be too severe for the majority of the medical schools.

2 If the hours for lectures are supposed to be textbook work with recitations, the ratio between the lecture and the laboratory work is a fair one.

3 It would require some readjustment of the medical curriculum as it is at present, but I can see no reason why such adjustment can not be made, especially as the Association of American Colleges are planning a gradual change in their entrance requirements during the next few years, and with this change in the entrance examinations there will be a necessity of rearrangement of the studies of the course.

I am of the opinion regarding the subject of anatomy, that, if possible, it would seem desirable for medical schools to arrange their second year course so that dissections in human anatomy could be carried out, and completed during that term. If the undergraduate colleges can so arrange a course that will give sufficient instruction, as now ordinarily indicated in the primary work in anatomy, and enable the student to pass a satisfactory entrance to the second year medical course, it would seem very desirable.

Also regarding histology, it would seem practicable to have the undergraduate college prepare such a course as would meet the requirements of the medical course, thus enabling the student to enter the second year well prepared in his histologic studies.

It would also seem advisable for medical colleges to give some credit to medical botany and zoology, and endeavor to arrange materia medica for the second year course, a subject that can be covered in one term, if the student is well grounded in his studies.

I quote the following through the kindness of Dr Gordinier, as being very pertinent, and as coming from so high an authority on this subject:

Summer afternoon rambles enabled me to do that which I have since found most useful, and to learn much of practical British botany. Botany stands low among the subjects of medical study in professional estimation, but I am certain that there is no part of science which is indirectly of so much service as practical botany. The process of the identification of plants by the descriptions, the training it involves in accurate observation, in careful comparison, and in giving the proper relative weight to different features, is essentially the same as that which is needed in the diagnosis of disease. No subject affords mental training quite so effective for the practitioner's work. *Abstract from Sir William Gower's Clinical Lectures 1904*

In physics the writer is convinced that medical colleges should encourage a clear and well defined course for the undergraduate

institutions. The study of physics should be made elective, so far as the subjects taken by the medical student are concerned. This is a most important division and one in which he should be well posted.

It would seem then that of the independent colleges those in favor are: President Stryker, Hamilton College; President H. C. King, Oberlin College; President Merrill, Colgate University. Opposed: President Woodrow Wilson, Princeton University.

Of the independent medical schools those in favor are: Dr J. H. Raymond, Long Island College Hospital, and the faculty of the same institution—Dr John C. Cardwell, Dr William Francis Campbell, and Dr E. H. Bartley; Dr Francis Dickinson, Harvey Medical College; Dean Albert Vander Veer, Albany Medical College, and Dr H. C. Gordinier, and Dr J. D. Craig (under certain changes) of the same institution. In opposition: Dr Willis G. Tucker, Albany Medical College.

Of the universities those in favor: Dean William Polk and faculty, Cornell Medical College, New York city (with certain modifications and changes); Dean H. D. Didama and instruction committee, of Syracuse University (the same); Dean W. L. Richardson, Harvard University, medical department (if the student is fitted for the work); Dean Herbert E. Smith, medical faculty of Yale (if modified); Dean Charles H. Frazier, University of Pennsylvania (if fitted). Opposed: Dean V. C. Vaughn, department of medicine, University of Michigan; Pres. J. G. Schurman, Cornell University; Dean John M. Dodson, Rush Medical College, Chicago; Dean Parks Ritchie, college of medicine and surgery, University of Minnesota; Dean A. C. D'Ancona, medical department, University of California.

Representatives, American Academy of Medicine. In favor: Dr A. L. Benedict (if modified); Dr Charles McIntire (with a summer course in laboratory instruction).

At the meeting of the Association of American Medical Colleges, held at Atlantic City, June 1904, Dr Henry L. Taylor, of the New York State Department of Education, presented a paper on the subject which elicited much discussion. At this meeting the following resolutions were adopted:

Resolved, That the Association of American Colleges approves of the so called combined system of college and medical education, and of giving time credits not exceeding one year, to the holder

of A.B., B.S., or other equivalent from a reputable college or university, provided such a student has had at least 900 hours in physics, chemistry, osteology, histology, embryology, anatomy, and physiology, and provided the applicant for such time credits satisfies the professors attached to the medical college as to his proficiency in these first year medical studies.

Resolved, That a committee on national uniformity of curricula be appointed to cooperate with a similar committee appointed by the National Federation of State Medical Examining and Licensing Boards for the purpose of presenting a minimum standard of medical education, together with such recommendations as the committee may deem proper to make as to the division of the subjects in a four years graded course. Said report to be presented at the next annual meeting and to be printed and distributed at least one month before the annual meeting.

Resolved, That no student shall be admitted to advanced standing without a *direct* communication from the dean certifying as to the applicant's credits and moral qualifications.

Conclusions

I am convinced, in view of the information gathered from prominent educators, and referred to in this paper, that the time is near at hand when this question must be definitely arranged and that encouragement should be given to the scheme of the seven years' work for both degrees.

Unless some such inducement is offered there is danger of many students intending to study medicine, going directly from the high school to the medical college. This latter should not be encouraged.

In talking over this seven years' scheme with friends, and our leading medical educators in this State, I have been greatly impressed with the various views they present on the subject of medical education. This one point is very prominent, namely, that the length of time, as now arranged, is too long for the ambitious student to pass through a preparatory school, then his four years' academic work in college, four years longer in a medical college, then one or two years' hospital service, making him, at least, 26, 28, or even 30 years of age before he is able to earn anything. The percentage of those who can take this extensive course is not very large.

One prominent member of our profession has already advocated that the student who contemplates the study of medicine leave his

preparatory school and attend a medical college for a six years' course, two years of which shall be practically elective, so far as literary studies go, giving the young man sufficient knowledge of Latin, one or two of the modern languages, and such other branches as shall fit him to enter on his medical studies, the latter to consist of four full years, as is already required by the State. There is something valuable in this suggestion.

Medical instruction is changing, in that much of it is becoming very practical, and Dr Osler, of Johns Hopkins University, is very earnest in his views that the last year of the medical student's time should be spent living in the hospital. No doubt there is much in this thought that will yet be developed into practical application.

I am strongly of the opinion that this subject should be thoroughly discussed, and believe that the final outcome will be satisfactory, and that there will be such a consensus of opinion as will encourage the student, who is to take up the profession of medicine, to proceed with his academic course in such a way as to fit him more fully than does the preparatory and high school course. There is great danger in the present system of discouraging work done in literary colleges.

There is no profession at the present time requiring so broad a foundation of educational advantages, as the practice of medicine. The student who is to succeed must acquire a very liberal education and be able to think along lines of careful reasoning, such as will enable him to eliminate the seemingly possible truths, which in reality are not, and to acquire only that which is known to be of real value. This is the age of rapid work, and the student must be trained to consider and eliminate the good from the bad.

There can be no question that universities having medical departments can arrange such courses as are herein outlined for the student who is to go on with his medical studies. The law of 1902 is correct, and, as stated, is intended to save one year of time for such students as feel disposed to take advantage of it. Independent colleges that have no affiliation with medical schools, will find it far more difficult, and yet the writer believes that it is possible to arrange such a course, on the basis suggested by the Board of Regents.

SHOULD THE REGENTS REGISTER COMBINED BACCALAUREATE AND MEDICAL COURSES OF OTHER STATES?

BY DEAN WILLIAM H. WATHEN, KENTUCKY SCHOOL OF MEDICINE,
LOUISVILLE [READ BY PRIN. JAMES WINNE, ALLEGHENY (PA.)
PREPARATORY SCHOOL]

I am heartily in accord with the work in the academic and professional schools in New York, and may I indulge the hope that the Regents of the University will adopt a standard sufficiently high, but so symmetric that it may be conformed to by the medical college where there is a desire to do good work. I believe that the quickest and safest way to arrive at any kind of reciprocity between the state boards would best be accomplished by trying to conform to the requirements of the State of New York for admission to the professional school.

I am pleased to learn that your medical school gives no time credit for work done in the college, and the sooner the state boards refuse recognition to medical schools requiring less than four regular courses in four separate years, the better for all concerned. We may give credit for any work done in the college as shown on examination, allowing such students to devote their time to other required subjects of the freshman year, and such elective work in the sophomore year as the medical school may permit and provide. Of course the medical school should have no concern about the acceptance of the medical freshman year as an equivalent for the work of the college senior year, for such students will have passed three years beyond a diploma from a certified high school, which is and will be for many years the highest universal minimum requirement for admission to the medical school; a maximum may be what any medical school may prefer. On careful investigation we may note the fact that no university completes in the college of arts and science all the work required in the freshman year of the medical school, and a bachelor's degree from a college is no measure of the work completed in the branches included in the freshman medical year; hence it is farcical to give any time credit for such degree. While the curriculum and the college environments tend to give greater breadth of

thought and sympathy, this does not justify the final recognition by the medical school of the work done in the college in the scientific branches included in the curriculum of the first medical year, that have a direct application to the therapeutics in the art of medicine and surgery. This breadth of sympathy would entail so much loss of intensity that the student would be crippled in his powers to specialize, and properly to appreciate the significance of the convergence of the forces of the scientific branches in their application to the art of medicine. In recognizing the scientific work done in the college, the tendency of its application must be intrusted to the instructor in the medical school. The student must not only acquire the knowledge, but he must also acquire the cultural capacity to utilize this knowledge; he must not only know philosophy, but he must be able to philosophize.

The requirement by state authority of attendance on four years' work in a medical school is both logical and ethical; it is no injustice to any student, and is in the interest of humanity, because it enlarges the powers of the physician in his efforts to prevent and cure disease. The medical school that insists on the privilege of allowing a time credit for a bachelor's degree, or for work done in the college, is influenced by commercialism, and is not in sympathy with the spirit of the age that encourages the acquisition of the greatest amount of truths consistent with the cultural capacity to utilize them in the attainment of the most perfect results in the interest of intellectual, moral and physical health.

May I then request that the Board of Regents of the University of the State of New York refuse to register combined "baccalaureate and medical courses of other states," and that they refuse to register as reputable any medical school that gives a time credit for a bachelor's degree, or for any work except that done in a medical course of not less than seven continuous months.

WHAT THE INDEPENDENT COLLEGES THINK

BY PRES. RUSSELL RHEES, UNIVERSITY OF ROCHESTER

When I was asked to speak on this subject, I replied that it was impossible for me to undertake to represent the colleges, but that I was very happy to tell to the convocation and Regents what thoughts were suggested to me as the administrator of one of the colleges, by the proposition submitted.

Following that line, I would like to say in the first place that, if the Regents or any similar body succeed in securing the agreement of medical schools of the highest grade to such a course as has been outlined by the Regents, I believe that well equipped colleges will be entirely able to do the work which is suggested. We can teach all of the biologic sciences which have been called for with the exception of pathologic bacteriology. I do not think that the colleges care to undertake to bring into their classrooms the diseased germs of diphtheria and similar pathogenic bacteria, but everything else in the biologic sciences that is called for in the Regents' outline, well equipped colleges can give. A large number of colleges are already giving these things, are in fact giving more in some respects than has been called for here. The same is true of chemistry; the same is true of physics. With reference to anatomy, so far as that work calls for no dissection of the human body, and is simply a study of comparative anatomy with the dissection of other mammals, and the study of the human skeleton, the colleges, as I said two years ago, would be willing to undertake such instruction. As I said two years ago, I do not believe that they should undertake instruction in human anatomy with the dissection of the human form. I repeat then that I believe that the independent colleges are in a position to give this instruction called for in this proposed pre-medical course just as soon as the Regents secure the readiness of medical schools of the highest grade to give credit for that work.

In the second place, I must confess to some skepticism concerning the practicability of such a pre-medical course as is here proposed, for the reason that, in studying the question independently in the interests of our own work, I have met a feeling on the part of representatives of leading medical schools that it is not practicable to postpone the study of human anatomy, associated with the dissection of the human form, so late as the second year of the medical course. The medical men with whom I have discussed this question have insisted that it is essential for the satisfactory pursuit of the second year of the medical course, that their students shall have had that kind

of training in anatomy which can be got alone from the dissection of the human form. If this is an irremovable difficulty, I do not see that the present investigation can issue in the result desired. I will confess to a great deal of encouragement in the words of Regent Vander Veer when he stated that he believes that a discussion of the subject may lead to a slight modification of the position taken by the medical schools. It may be that it will be possible for the medical schools so to adjust their instruction in anatomy that they can put all that part of the instruction which necessarily involves the dissection of the human form, in the second year of the medical course. If that can be done, the independent colleges will welcome the change most cordially.

Now I will confess that, when this question was first considered by us, I felt that the medical schools were holding rather uncompromisingly to their own requirements; that they were unduly hesitant about making any concessions. Whether justly or not, that feeling has been entirely removed. I have rather come to the conclusion that the medical schools, feeling as they do the necessity for the most perfect preparation of men for the practice of medicine, perceive an insuperable difficulty in the way of postponing later than their first year that work of anatomy which I have felt the colleges can not undertake.

I would like to say a word in reference to the aim of colleges and particularly of independent colleges. I believe that every one of them has definitely as its purpose, in the most effective way possible, to fit men for life. We hold that there is an advantage to be gained from the culture of the college course that will show itself in the later pursuit of medical science, even as we believe that the pursuit of a college course will give a man advantage in the practice of law, in the practice of engineering—in any other enterprise in life to which he will give his whole energy, refined and disciplined by the studies which he has had an opportunity to pursue in his college course. We believe that it is worth while to provide for the best men in medicine the opportunity which is given in the college course.

Now the fact that we recognize our ability to do the work which the Regents have outlined as a possible equivalent to one year of medicine, indicates that we believe that certain of the studies necessary to a medical course are germane to the college curriculum. What do we mean by that? I think we are coming to see more and more clearly each year, that by culture we do not mean something that is to ornament a man's life. The physician who has had a college life has undoubtedly enriched his own opportunity for pleasure, his own capacity for the enjoyment of a refined life; but, if we can prove that the man has done more than that and has enriched his own capacity for the pursuit of medical science, his own ability to practise the profession which he is preparing for, then we can make another claim, and insist that the best trained physician is the man who has the course of liberal culture prior to his medical course.

We believe that the history of the American college has proved that there is something more in liberal culture than an ornament for a refined life; that it gives a man possession of his powers and a mastery of his own wits and wider outlook over the world, which fit him with greater efficiency to do work in any specific line which he may choose to enter on.

Of this conviction I have had a most interesting confirmation in testimony given by Mr Gary, vice president of the United States Steel Corporation, who said some time ago to a friend of mine that they can find thoroughly trained engineers more than they can use coming each year from the best technical schools of the country, but that the man that they want and are looking for is the man who has behind his technical education a college education. Why? The technical man is the master of his science, but he is often at a loss to make his technical conclusions plain and persuasive to business men who do not understand his technical language, and are unacquainted with the technical questions with which he deals, but who desire to know the practical significance of that which their engineer's superior technical knowledge has enabled him to discover. Mr Gary said that he finds that the discipline of a general education prior

to the technical training, gives the desired ability to make things plain to nontechnical men. Now, if it is true that those who are seeking most seriously and relentlessly for the largest capacity for the big enterprises of the country, discover superior efficiency as the normal result of that liberal culture which the colleges have stood for, I think we are justified in believing that even in the preparation for the profession of medicine the colleges have something to offer that it is worth while to consider.

If that is true, the colleges are confronted by the serious question of reducing the unquestionably excessive length of time now called for if a man is to secure both his college and his medical degree. If the college course is merely so much accomplishment, so much ornamentation, so much larger equipment of a man for the enjoyment of life, the colleges can be rather indifferent to the question whether it takes eight years or nine years for the full medical education, and they will seek only the man who is able or willing to spend so much time for the enrichment of his own life; but, if it is true that the colleges have to offer something in the way of intellectual quickening, of clearness of vision, of correctness of judgment, each of which is important in the pursuit of medical science, then the college is forced to face the question, how may we provide for the greatest economy of time, and also secure for men who desire to go to the front rank of their professions the advantage of liberal culture coupled with professional training?

For this reason I am seriously studying this problem, and mean to put before our faculty for consideration, the question whether we ought not to put the shoe on the other foot. If it proves to be impossible for the medical schools to postpone till their second year the study of human anatomy, with the dissection of the human form, and if on the other hand we are quite ready to ask the medical schools to give credit for the study of bacteriology and chemistry and other pure sciences, conducted in the college, is it not logically incumbent on us to face the question whether as colleges we ought not to stand ready to give credit toward the college degree for work in pure science conducted in the medical school?

Now, if I am not trespassing too much on your time let me explain. First, with reference to work in pure science. I think colleges are coming more and more clearly to see that there is a distinction between preparation for the practice of a profession and the investigation of a science. In any adequate course of preparation for professional activity, both are included. To illustrate from the case before us, I believe that the most of us would hold that the study of materia medica is distinctly technical. It has as its aim the preparation of a man for the practice of a specific profession. It endeavors to fit him with a certain amount of skill in the meeting of specific situations. Till I get a different conception of that particular subject, I should not favor giving college credit for the study of materia medica. The same is true of many of the clinical studies which are provided in a medical school. I should also hold that the study of human anatomy ought to be classified purely as a technical subject, if the human form is studied simply with a view to the diagnosis of disease and the question of how that disease should be treated. By the same argument a medical chemistry would, under certain circumstances and as taught by certain methods, be a purely technical subject. If, on the other hand, human anatomy is treated in the classroom and laboratory of the medical school as a branch of biologic science, if the human form is studied comparatively with the other members of the group of mammals, if the whole subject is treated as a science worthy of investigation by itself, leaving aside for the moment the consideration of its application to the practice of a particular profession, I believe that the college would be justified in giving credit for that kind of work in human anatomy. By the same argument I believe the college would be entirely justified in giving the college credit for the study of bacteriology, embryology and histology as branches of biologic science.

Now the fact that we are ready to ask the medical schools to give credit for the equivalent of one year of their work done in the college, indicates that we believe there is at least work

enough in a medical course that can belong to the curriculum of pure science, to justify the college in giving credit to the extent of one year.

What would follow if the college were asked to do this?

Speaking for myself—and I must repeat I will only give you personal opinions, I believe that any course of study which contemplates giving credit for a year's work in pure science in the medical school must be so readjusted as to provide that the young men who avail themselves of the opportunity which it offers shall also have given to them in the years in which they are residents at the college, the studies which give to the senior year its superior value now.

We at Rochester have no hesitancy in proclaiming the fact that we have not seen the wisdom of throwing open the last year of college life to absolutely free election. We believe that certain studies in history and certain studies in philosophy are wisely retained till the last of a man's course, and we believe that a man does not have given to him what a college education should give unless he is asked to pursue such studies in history and philosophy.

This being so, in the three years during which we expect men who desire to avail themselves of such a credit for one year of science work in the medical schools we should provide that they must take certain subjects that are now assigned to the senior year. It would mean the concentration of prescribed studies in the curriculum into a period of three years. On such a plan of concentration the freshman year might be the same for all students. If a man determined at the end of the freshman year that he wished to study medicine and wanted the advantage that would come from such a combined college and medical course, we then should advise him to register for the premedical course and do the prescribed work of his college in three years; he could then go to a medical school, and we would study the curriculum of that medical school and tell him for what subjects in that curriculum we would give college credit, and, when he had completed these subjects to an extent equivalent to a year's work in college, he could come to the college and receive his college degree.

This I believe to be an entirely reasonable proposition, based on the recognition of the difference between pure science and applied science, based on the acknowledgment of the pressing nature of the problem of reducing to its lowest limit the time necessary for completing a medical education, and based on the simple reciprocal acknowledgment that, if we ask the medical schools to credit work done with us to the extent of a year and there arises an insuperable obstacle in the way of their doing that, then we would justly grant credit for similar work done in the medical school.

WHAT MINIMUM REQUIREMENTS SHOULD BE PRESCRIBED FOR ADMISSION TO MEDICAL SCHOOLS

BY DEAN CHARLES H. FRAZIER, MEDICAL DEPARTMENT OF UNIVERSITY OF PENNSYLVANIA

When invited to discuss this phase of the question of medical education, I hesitated for a moment, not because of any lack of interest in the subject or lack of appreciation of the privilege accorded me, but because the subject has been discussed so frequently and so fully during the past few years that I questioned my ability to contribute anything anew or even to throw a new light on that which had already been contributed.

I doubt not that every one of you believes that the ideal requirements for admission to a medical school can not be secured in the secondary schools, and that, whatever the standard may be which has been adopted today by the majority of medical schools, it is only a question of time—and that not very far distant—when it will be considered both feasible and desirable to raise the standard still higher.

Whatever may be the views of those who are interested in this question solely from the pedagogic point of view, disregarding those whose opinions may be influenced to the slightest degree by any unworthy motives, we should realize that there is an economic side to the question.

Any action on the part of the medical colleges which would so reduce the number of practitioners in this country as not to pro-

vide enough to care for the sick could but be condemned. But we all know that the profession today is overcrowded; that in the United States there are twice as many physicians in proportion to the population as in England, and four, five and six times as many as in France, Germany and Italy respectively, and that (according to Simmons) "there are annually being turned out of our medical colleges twice as many graduates as are required to keep up the present absurdly crowded conditions, *even if we allow for the normal increase in population.*" During the next four years at least 27,600 more will be added, making nearly 50,000 new physicians entering the ranks during the first eight years of the 20th century." Add to this the fact that the estimated average annual income is only \$750, and we have two statements which may well cause us to stop and consider. Cognizant of these facts and figures, ought we to offer the opportunity, much less encourage, 2000 young men to begin the study of medicine, to spend four years of their lives at a time when they should be preparing for their life work, to incur expenditures which many of them can ill afford, when we know that on the day of their graduation many of them are to engage in a forlorn cause, will struggle for a few years only to eke out a bare livelihood, and finally to drop out of the race because they have been outclassed or what is still more pitiful, because they have been crowded out. And why is this the case? Because we have not realized that the medicine of the recent past is quite different from that of today. Without the necessary preliminary education the mind of the student is not able to grasp the principles underlying the science of chemistry or of pathology, and on graduation the student is unable to apply to practice the knowledge of which he may acquire but enough to pass an examination. To enter on this study understandingly and to obtain a knowledge of the scientific branches of medicine in their present stages of development, the student requires more in the way of preliminary education than a secondary school education. It is waste of time on the part both of student and teacher, to say nothing of other disadvantages, to allow those intellectually unfit to enter on the study of medicine.

Not only should the standard of entrance requirements be raised, but during the first and second years of the course a process of weeding out or of selection should be inaugurated whereby those seeming to lack the qualifications necessary for success should be discouraged from continuing the course. Dr Musser, in his masterly address on the "Aspects of Medical Education" says, in this connection:

After entering the medical school with, it is presumed, the proper educational attainments, his career the first year should be closely watched. That school has too many students if it does not have enough instructors in the first year to be able to judge with a reasonable degree of accuracy of the character and moral stability of the men. This is not to be taken in a prudish sense or with too critical a scrutiny of habits which are the overflow of the animal spirits or the expiring exuberance of the boy approaching manhood. This can be said that a student who does not play fair in his exercises, who cheats in one demonstration or evades another, who does not show manliness, frankness and truthfulness in his first year duties, will not be a good diagnostician. He will cheat himself, he will cheat his patient. The teachers of the first year, or at least the second, should know this and block the student there and then. It would be a kindness. Let us then agitate whether we should not have a certificate of manliness, a certificate of health as well as a certificate of mental proficiency, before we admit students to our medical schools or permit them to go beyond the first year. Let us not be decoys, alluring them on to later destruction, but rather be guardians, wrapping the strong arm of experience about them to lead them to the fitting pathway.

The action taken last summer by the Association of American Medical Colleges, in requiring for admission a diploma awarded after four full years in a high school, will do much toward eliminating a large percentage of those unfit to undertake the study of medicine. If this action were subscribed to by all the medical colleges of the country, now having lower entrance requirements, nothing more could be desired for the present. The medical profession would have every reason to congratulate itself. Surely no greater stride has ever been taken in the history of medical education. Unfortunately, however, of the 124 medical colleges in this country, but 68 are members of the association and have

subscribed to this action, and there still remain more than 70 regular colleges which are unwilling to join the ranks. It is to be hoped that in the near future these will be forced into line or out of existence by the extension to all the states of the Union of the high license laws that have been enacted up to the present time in but a limited number.

The old threadbare argument which has been used so effectively before legislative bodies that these additional educational requirements would work a hardship to the boy of limited means no longer can be maintained. A high school education is within the means of every boy of the country, and the facilities for instruction are increasing with amazing rapidity. In the report of the Commissioner of Education for 1902 I find that during the past 30 years, while there has been but a moderate increase in the attendance at private schools and academies, *none* really in proportion to the increase in population, that, whereas in 1876 there were but 22,982 pupils in public high schools, in 1902 there was provision for 550,611 pupils, an increase of from 50% to 67½% of the population.

If, viewing the question from a comprehensive point of view, considering the interests of the profession at large, as well as those of the public, you asked me whether I should be willing to-day to accept the high school diploma as the minimum requirement for admission to all medical schools, I should answer positively yes. But, if you ask me whether we should rest content with this and make no provision for the morrow, I should feel bound to answer emphatically no!

Raising the standard of the requirements for admission throughout the country today on the basis of a high school diploma will reduce the number of matriculates, perhaps 50% at first, but soon there will be a reaction. It has been the experience of every school in the country, that, while the immediate effect of additional requirements, whether of time, scholarship or money, was pronounced, the effect was not lasting. This was true when the course was lengthened from two to three, and then to four years respectively, and from five to eight and a half or

nine months, when the admission requirements and the tuition fees were raised, and when students were not given credit in time for courses taken in nonprofessional colleges. Within a few years, providing the reputation of the school is maintained, the number of matriculates will be as large as ever.

I have always felt that there was an apprehension in the minds of many that the more heavily endowed institutions, and specially those affiliated with universities, would have eventually somewhat of a monopoly in the education of medical students. One has but to consider for a moment, to realize how groundless these fears must be. However possible this might be in purely technical and scientific schools, it can never be possible of medical schools—providing the latter apply the most approved methods of teaching clinical branches of medicine. While it is true that the present elaborate methods of teaching the fundamental subjects require a very much larger corps of teachers, it is absolutely impossible to teach the clinical branches as they should be taught to an unlimited number of students. With a hospital having a capacity of 300 beds, an integral part of our medical department, apart from the exceptional opportunities offered by the municipal hospital with a thousand beds on the adjoining property (not to speak of other extra-mural privileges), I should consider a fourth year class in our medical school of more than 150 as unwieldy, and should not feel that the members of the class had sufficient opportunities for the actual ward work and personal observation, which have become such an indispensable and invaluable feature of their clinical course. For this reason there can never be a monopoly in medical education, for just so far as the matriculates exceed the number which can be handled properly, just so far will the course in that institution fall below its standard of excellence, and just so soon will the institution lose the reputation to which it previously may have been entitled.

It is not necessary for me to speak of the advantages to the individual himself as well as to the public, lay and medical, of a broader foundation in general culture. All of us envy those who have had the opportunity of a four year course in the liberal arts,

but few, if any, would be willing to insist on it. I am speaking now of the value of a liberal education not so much as means of training the mind, but because of its refining and broadening influence, because it implants in the mind of the prospective physician tastes, whether for the classics or for history, for art or for literature, which may be so cultivated and nurtured that they will be to the possessor, as well as to those with whom he may associate throughout his life, a means of recreation and distraction, a means of getting him out of that rut of narrow-mindedness into which so many of our profession fall and trudge along the rest of their lives. In this connection the question arose in my mind as to whether a combined course in medicine and liberal arts would be feasible. In the case of those institutions requiring two years of what is now called the combined college and professional course, would it not be possible and advantageous so to arrange their curriculum that the subjects of the two years in the college and the first two years in the medical schools would be distributed more or less equally over their combined four years. It seems to me that such a course, if feasible, would guard against the tendency toward narrow-mindedness which is the great evil of the concentration method of instruction. Having completed these four years of study partly technical, partly liberal, with the benefits which would be derived from associating with the students and from conforming to the methods of other departments, the medical student for the remaining two years would confine his attention wholly to the study of the purely medical subjects.

In speaking of the distinction between the college and the professional course, President Hadley has well said :

The distinction is not in the things taught but in the ethical atmosphere in which they are learned. The college student pursues his investigation amid a set of associations which bring him into contact with nonprofessional life on as many sides as possible. The student in the professional school, on the other hand, is in an atmosphere which relieves these outside influences to a minimum and encourages him to narrow his efforts on the work immediately at hand. The college course gives a man breadth of sympathy; but with all except the best men this breadth is accompanied by a sacrifice of intensity of application,

The professional course secures the intensity but with a corresponding danger of sacrifice of breadth. . . . The sooner a man's brain begins to turn to his life work the better, but the later a man's horizon tends to be narrowed to the sphere of his life work, the better also.

I came here today to enter a plea for more advanced requirements than one can acquire in the present curriculum of the secondary schools, not only because of the advantages that are to be derived from a more liberal education, but more specially because additional training of the student's mind is absolutely necessary to enable him to understand and to digest the subjects in which he is to receive instruction.

If the standards for admission to medical schools are to be raised, what additional training should be required? In answering this question, I will not attempt to standardize the requirements in units of high school or college years. This will be possible only when there is a greater uniformity in the various institutions throughout the country. One college degree differs from another as much as one high school diploma from another. It would be futile, therefore, not to say inaccurate, to recommend a requirement of one or two college years of preparation, without taking into consideration the rating of the institution. It may be that in some states or in some institutions the requisite instruction may be obtained by the end of the first year of a college course, while in another it may require two years. And again, while it may be impossible at the present time for the student of the high school to meet the specific requirements, in the course of a few years the curriculum of those institutions may be expanded and developed to such a degree as to enable the student to obtain the necessary instruction without entering college. For these reasons, I believe it unwise to specify in terms of years the requirements that should be adopted.

The subjects of which the prospective medical student should have knowledge over and above those that are included in the curriculum of the secondary schools may be said to be those partly bearing on or partly fundamental to the study of medicine. It is necessary for me only to mention these subjects, as

the advantages to be derived from a knowledge of them are fully appreciated.

Those fundamental to the study of medicine.

Group 1 Physics and chemistry. As to the latter, the student should have received his instruction in inorganic chemistry before entering the medical school. The development of physiologic chemistry has been such that twice as many hours should be devoted to it at the present time as seemed necessary a few years ago. A thorough knowledge of this subject is absolutely indispensable if one would hope to keep abreast with the growth and development of bacteriology or pathology. Inasmuch as the medical curriculum is already crowded, and for obvious reasons should not be lengthened, the knowledge of inorganic chemistry should be acquired before entering a medical school.

Group 2 Those affording a broader foundation, including subjects closely allied to medicine, e.g. studies in biology, zoology, botany, comparative anatomy, etc.

Group 3 A reading knowledge of German, and perhaps one other foreign language, either Italian or French.

One realizes at once that, to meet these additional requirements, at least one, but not more than two years, must be added to the period of preliminary education, and these, for the present at least, must be spent in college, though, as I previously said, a few years hence the secondary schools may expand their courses to meet, as does the German gymnasium, this requirement.

How are we to judge of a man's fitness or preparedness to study medicine according to the standards which we have advocated? The fairest way, and the one which does away with many complications involved in admission by diploma, is an entrance examination. Let the Board of Regents of the State and the corresponding authorities in other states hold entrance examinations for admission to all the medical schools in their respective states. Relieve the individual schools entirely of the authority and responsibility of determining this question, and place such authority where it ought to be today, in the hands of the boards presiding over higher education. No question

would arise then as to whether the individual had a high school diploma, or as to whether he had been able to acquire the proper education in one or in two years of college work, or whether with private tutoring or home study he had been able to shorten the period of preparation by a year, or had been able to carry on some self-supporting work while preparing himself. Say to him as the Bar Association of Pennsylvania says to those who hope eventually to be admitted to the bar, take the examinations which we prescribe and in that way declare your eligibility for admission to the ranks of your profession.

CONCLUSIONS

1 The adoption of the high school diploma as a minimum requirement by all medical colleges is in itself a distinct advance.

2 Such a regulation would if enforced reduce the ranks of a much overcrowded profession, but, what is still more important, eliminate from our medical schools those who will be a discredit to the profession and who will fail to obtain a livelihood.

3 The effect on the number of matriculates would only be temporary.

4 For a proper understanding and appreciation of the medical sciences as expounded today, more than a secondary school education is required.

5 The value of a liberal education leading to bachelor's degree is fully appreciated and considered desirable, but such preparation is not necessarily the ideal preparation for the study of medicine.

6 The ideal course implies one which leads up to and is essentially preparatory to the study of medicine.

7 The value of associating classical with medical studies for the first four of a six years' course, as encouraging greater breadth of sympathy and interest without so great a sacrifice of intensity of application, is deemed worthy of consideration.

8 The preparedness of the student should be determined by his ability to pass entrance examinations conducted by boards unaffiliated with medical schools.

Gentlemen of the Board of Regents: A great responsibility rests on your shoulders. The State of New York under your able and active leadership has ever been in the forefront in the advoca-

tion of higher education. The country owes you a debt of gratitude for your accomplishments in the past, and throughout this land the eyes of educators look to you, if I may use the expression, "to set the pace." The facilities offered by the medical schools in this State as compared with many others are much to be envied. The authority vested in the Board of Regents is unique. Will you not take advantage of these great opportunities, and in the interests of higher education consider the advisability of raising gradually to be sure, but in the near future, the minimum requirements for admission to medical schools?

Pres. Boothe C. Davis—I am very much interested in the discussion this afternoon on this subject. I know that certain medical colleges are asking the independent colleges to consider at the present time the question that has been submitted by President Rhees of the University of Rochester, whether the college will be willing to accept certain studies in the medical college course for the senior year's work in the independent colleges.

It is a matter which I have thought much on and have under consideration. I think I have nothing new to offer but am exceedingly interested in the discussion which has been brought out, particularly concerning the liberal spirit which is shown by independent colleges and medical schools in this argument. I do believe there is a ground of harmony and unity which we can reach and which will accommodate our constituents, and by this friendly feeling and cooperation the right will be discovered and maintained.

Sec. Egbert LeFevre—The question of combined baccalaureate and medical courses is one of great interest to both the undergraduate colleges and the medical schools, and it has been a subject of study on my part as one of the executive officers of the University and Bellevue Hospital Medical College.

Universities with medical departments are able to give the baccalaureate degree and the degree of M.D. in seven years by allowing the student to take the first year of the medical course in his senior year as an elective.

In the New York University this plan is allowed if the student, during his undergraduate years, has taken the chemico-biologic course. In his senior year he may elect in the medical school the first year professional studies, but is obliged to elect in addition a definite course in the undergraduate school. This double course is possible because the medical school accepts the work the student has already done in chemistry and physics as equivalent to the hours given to these subjects in the first year of the medical curriculum. This arrangement does not remove the student during his senior year entirely from the undergraduate course and his college affiliations, while at the same time, it allows him to obtain the combined degrees in seven years.

Students attending independent schools can not avail themselves of this shortening of the course unless they withdraw at the end of the junior year and enter the medical college and so lose their baccalaureate degree, or they enter the senior class of one of the universities having a medical department and then take the medical course as an elective.

The first method is a distinct loss to the student, the second is an injustice to the independent colleges.

I feel that the independent colleges should be on the same footing as the universities, and that their students should not be discriminated against, or tempted to leave before finishing their undergraduate course.

In considering the question of combined baccalaureate and medical courses, it should be emphasized that there is no intention of allowing any time credit in the medical course to students because they have a baccalaureate degree. There is some misunderstanding on this point, as one of the papers just read shows. In order that a student be granted credit on his baccalaureate degree, it is imperative that certain specified subjects be included in his baccalaureate work.

I do not think that the fact that a certain number of hours has been devoted to the subjects of comparative anatomy, physiology, histology, embryology, chemistry, and physics is sufficient to allow the student to be admitted to second year of the medical

school. In most of the undergraduate colleges the biologic courses are not sufficiently comprehensive and they are not taught thoroughly enough. In order to prepare the student for the medical course, they should be taught with this end in view. This does not demand that they be taught as technical subjects; they can be taught from the standpoint of pure sciences.

Two years ago, when this subject was under discussion at the convocation, objections were raised by the president of Vassar College to the proposition to use a very considerable portion of the time now devoted to liberal education for nothing less than technical education. The statement was made that the chemistry, physics, and biology were considered in the baccalaureate course as culture subjects and were taught as such. I see no reason why they should be any less culture subjects, if they are taught in a more thorough manner and for a definite purpose.

On the other hand, I do not believe it is possible or desirable for the colleges to duplicate the first year of the medical curriculum in the baccalaureate course. President Rhees has already pointed out some of the difficulties from the college point of view.

The subject of anatomy has been one over which there has been the most contention, and at the previous convocation, the attitude of the representatives of the medical colleges was that no credit could be given for the baccalaureate course unless it included anatomy equivalent to that of the first year of the medical curriculum.

I do not believe that the colleges should be compelled to teach practical anatomy. Even if their facilities allowed it, I do not think that it could be advantageously taught there from a medical point of view; and, on the other hand, if a comprehensive course in comparative anatomy, including dissection of the mammals, is given, the students would be prepared to complete during their second year the practical anatomy of both the first and second years.

Observations of the work done by students who have entered the University and Bellevue Hospital Medical College after having taken such a course in comparative anatomy, show that they

have the technic of dissection and a thorough knowledge of the appearance of different tissues, and during the first year they frequently elect to do double the work in dissection that is required. The gold medal, given for the best examination in both practical and theoretic anatomy, almost invariably is taken by students who have had such a course in comparative anatomy in the undergraduate college.

Histology and histologic technic offer no difficulty. It is very easy to obtain human tissues for demonstration purposes and for comparison with the tissues of the lower animals. The use of human material in such a course does not have the same objections as human dissection. We have examined a number of men who have entered the medical college with credentials for a course in histology and histologic technic from an undergraduate college, and who desired credit for the work done in these subjects. We found that their course was satisfactory in every respect, and that their general knowledge of histology was much more extended than it is possible for a student to obtain in the ordinary course of histology as given in the first year of a medical curriculum.

Bacteriology of the first year of the medical course can be taught without the use of pathogenic micro-organisms.

Physiology, as taught in the undergraduate colleges, must be elementary and comparative, and the student would have to do some extra work in this branch during his second year.

It is not necessary for me to discuss the other subjects, as it is conceded that the courses in chemistry and physics and embryology in the undergraduate colleges are more than equivalent to those of the medical schools.

I thoroughly believe there is a basis on which it is possible to admit the students who have taken the medical preparatory course in the undergraduate college to the second year of the medical schools without in any degree lowering the standard of the medical education or introducing into the baccalaureate course subjects that have no right there. I do not mean that the medical preliminary course will be in all respects equivalent to the first

year in the medical school, but the student can be admitted to second year with a technical condition in practical human anatomy. The extra work demanded in the second year course can be very easily done by such a student. The preliminary medical course has embraced some of the subjects that are included in the second year medical course. The training in methods of study and the greater breadth of medical knowledge allows of more rapid work in all the branches, so that at the end of the second year the student is as competent to pass the final examinations as is the high school student who has been two years in the medical school.

I believe two things are necessary for the success of the combined course. First, that the Education Department of the State of New York define what shall be the prescribed subjects taught in the preliminary medical course. It is not sufficient that the extent of this course shall be fixed by the number of hours that are to be devoted to the given subjects, but the Department should determine how far the work in the different subjects should extend. It would be very advantageous if the Department could issue a syllabus giving the extent of the course in each study, so that there may be no misunderstanding by the undergraduate college of what is required, or by the medical schools of the nature of instruction given.

In the second place, I think that, if certain changes were made in the arrangement of the work in the first year of the medical schools, the student who has taken a preliminary medical course could enter the second year with the minimum amount of conditions. More time should be given in the first year to the courses in chemistry, physics, histology, embryology and bacteriologic technic, and in this manner much would be removed from the second year.

The course in physiology in the first year should be a general one and taught from the standpoint of pure science. The definite application of physiology to medicine could be reserved for the second year. Medical botany could be included in the first year

course, while pharmacology and materia medica should be taught exclusively in the second year course.

It is best to make only such changes as are necessary in both undergraduate and the medical college courses; but I see no conditions that would interfere with the harmonious working of the combined baccalaureate and medical courses.

One of the subjects for discussion at the convocation was whether courses given outside the State should be registered by the Regents. I think that the same rules should apply to these courses as are now enforced for the granting of the Medical Student Certificate. Institutions are registered where a definite course has been given of which the Education Department has full knowledge. When, on the other hand, a student presents credentials from a college or high school that is not registered, credit is given for the time given to the studies of the subjects certified to, but the student is compelled to pass an examination to show that he has the necessary knowledge of these subjects.

Examinations in the subjects of the preliminary medical course could be very easily arranged, and each case passed on individually.

Regent Vander Veer—I should like to say just a word in closing the discussion. I feel we are under great obligations to Dr Charles H. Frazier for his very excellent paper on this subject. It shows careful study on his part, and I am sure will be of great service to us in reaching and solving the question as now presented.

In the very valuable and instructive discussion given us by President Rhees we have much for which to be thankful. It is a most brilliant presentation of the question; and I also feel to say the same in regard to Dr LeFevre's remarks.

I wish to present some tables compiled by Dean Kober of the Georgetown University, in reference to more uniform methods of instruction to medical students, which give evidence of careful study. I believe these tables will be of great value to us as we study this problem more carefully.

Comparative standards of medical education

SUBJECTS	PROPOSED STANDARD			Average 43 colleges	Michigan	Georgetown pres. standard	State medical exam. standard
	Lecture	Laboratory	Total				
Physics	20	20	40	.....	.....	.....	.....
Chemistry and toxicology	144	168	312	375	350	352	340
Anatomy	250	250	500	549	400	558	500
Histology and embryology	59	150	209	219	200	209	200
Physiology	195	80	275	276	260	275	250
Mat. med., pharm. and therape..	169	27	196	118	234	196	110
Bacteriology	50	100	150	181	230	150	115
Pathology	100	182	282	295	220	256	260
Mor. anatomy and med. zoo. ....	.....	.....	.....	.....	.....	90	.....
Physical diagnosis	86	86	72	61	120	72	55
Medicine	180	360	540	544	540	540	500
Surgery and orthop. surgery	276	286	562	596	510	562	540
Obstetrics	100	60	160	177	100	160	160
Gynecology	48	110	158	145	220	168	130
Pediatrics	30	60	90	72	140	90	60
Dermatology and syphilis.	15	25	40	64	60	36	50
Genito-urinary diseases	15	15	30	.....	90	36	.....
Laryngology and rhinology	24	48	72	67	.....	72	55
Ophthalmology and otology	30	60	90	106	260	90	95
Neurology	36	36	72	82	.....	72	75
Mental diseases	30	30	60	27	120	60	25
Electro-therapeutics	12	12	24	.....	30	24	.....
State medicine	30	.....	30	.....	30	30	.....
Hygiene and dietet.	36	.....	36	33	54	40	30
Clinical microscopy .....	.....	.....	.....	.....	72	62	.....
	1 885	2 115	4 000	3 937	4 240	4 200	3 540

Proposed standard of a 4000 hours medical course

FIRST YEAR				SECOND YEAR			
	Lectures and recitations	Laboratory work	Total		Lectures and recitations	Laboratory work	Total
Physics	20	20	40	Anatomy	106	78	184
Chemistry	72	72	144	Physiology	90	40	130
Osteology	24	.....	24	Chemistry	72	96	168
Anatomy	120	172	292	Bacteriology	50	100	150
Histology	24	100	124	Pathology	62	140	202
Embryology	35	50	85	Pharmacology	45	15	60
Physiology	105	40	145	Minor surgery	12	12	24
Materia medica	84	12	46				
	434	466	900		437	481	918

THIRD YEAR				FOURTH YEAR			
	Lectures and recitations	Laboratory or clinical	Total		Lectures and recitations	Laboratory or clinical	Total
Pathology, morbid anatomy and medical zoology	38	42	80	Medicine	90	180	270
Physical diagnosis....	36	36	72	Surgery	120	125	245
Medicine	90	180	270	Orthop. surgery	12	12	24
Surgery	120	125	245	Obstetrics	50	80	80
Orthop. surgery	12	12	24	Pediatrics	15	30	45
Obstetrics	50	30	80	Gynecology	24	50	74
Pediatrics	15	30	45	Neurology	18	18	36
Gynecology	24	60	84	Mental diseases	15	15	30
Neurology	18	18	36	Electro-therapeutics ..	12	12	24
Mental diseases	15	15	30	Laryng. and rhin'gy..	24	48	72
Therapeutics	90	....	90	Ophthal. and otology..	30	60	90
Hygiene and dietetics	36	....	36	Dermatology and syph	15	25	40
				Gen.-urin. dis.....	15	15	30
				State medicine.....	30	....	30
	544	448	1 092		470	620	1 090

SUGGESTED CHANGES REGARDING THE ADMINISTRATION OF THE VETERINARY STATUTE

BY PRES. JAMES LAW, VETERINARY COUNCIL [NOT PRESENT AT PROCEEDINGS]

First, in making out a new calendar it is very desirable that the dates for examinations for license of veterinarians in June shall not conflict with the commencement of Cornell University. Candidates for examination in this month are almost exclusively students of this college, and they feel it a great hardship that they can not be present with other students to receive their diplomas. As this June examination is almost exclusively for students of the New York State Veterinary College, and a slight change of date could work no possible harm to any one else, it could easily be arranged so that it would not coincide with the commencement at Cornell. Commencement is always on the Thursday nearest to the 20th of June; it may therefore be any day from the 18th to the 23d. And, if the examinations for license keep clear of these days, there can be no conflict. As the published dates for the license examinations end with 1905, it seems

specially appropriate now to call for a change which will obviate the present conflict.

Second, there is another change that would prove a great boon to the student, and which, so far as I see, would entail no increase of work on the Regents. Let the students who have had two years of college work get an opportunity to pass the subjects of chemistry, anatomy and physiology, leaving the more advanced subjects to be passed after the completion of the third year of college work. This is allowed in the case of candidates for medical and dental degrees, and it seems unreasonable to deny the privilege to the veterinary candidates. As it now stands, it demands an unnecessary mental strain to keep primed and fresh on a variety of subjects at once, and probably in some cases interferes with that achievement in the later and more advanced subjects, which is desirable.

Third, the time is ripe for one more change. The law regulating veterinary practice in New York [Laws of 1895, ch. 860] prescribes for admission to the veterinary course that the candidate shall have "completed an academic course in a registered academy or high school." To make the transition easier, the veterinary student certificate has been granted on presentation of 24 academic counts; but the rule expires with the present year, and, as the relief has been allowed for 10 years from the date of the law, I submit that the full requirement of the law (48 academic counts) should be exacted in 1905. The object of the concession has been attained, the candidates for admission with 48 counts are amply sufficient to tax all our facilities, and, if the old rule of admission on 24 counts should hold, we must either lower our standard (making our course less thorough) or we must secure from the Legislature an increased appropriation to take care of the largely increasing classes. With the uncertainty of a legislative appropriation there is the alternative of a serious lowering of our standard; and this danger would be obviated certainly and rightfully, by declining to give the veterinary student certificate longer than this year on the basis of 24 academic counts. The University will in any case require 48 academic counts from any candidate

for admission later than 1904; and, if the Regents will also allow the law to exact its full requirement in 1905, it will maintain a full harmony of action on the part of both bodies and incidentally raise the general standard of veterinary practice.

THE EDUCATION OF NURSES

BY PRES. SOPHIA F. PALMER, STATE BOARD OF NURSE EXAMINERS

When I tell you that I did not know in what way I was to be called on to take part in this discussion till after the session this morning, I am sure you will sympathize with me in my embarrassment. The subject of the education of nurses is one which is worthy of a very carefully prepared paper, but I come before you with practically no preparation and can give you only a few words from my own experience.

Thirty years ago, when training schools were first established in this country, they began one by one, as you know, each school a law unto itself in regard to what it should teach its pupils. There has been till the spring of 1903, very little change in this method of training. A nurse entered a training school, served her term of probation, was accepted and signed a contract agreeing to remain in that school for two or three years as the case might be, and to conform to the requirements of the school. The school had a printed curriculum, but it really gave to the pupil in training just as much of that curriculum, or just as much of a nursing education as it chose to give. There were no minimum requirements by the State or any educational body, and the amount of education that the nurse received depended entirely on the facilities of the school and the conscience of its management.

Some schools gave a splendid training and stand today a way beyond the requirements that can be exacted by any educational body for many years. Others have used their training schools, as we say in the profession, for commercial purposes and have given very little of nursing education in return for the hard work and the time which the women spend in service in the hospital. Now, as the outcome of this condition of things, extending over a period of 30 years, there gradually grew up a very unsatisfactory state

of affairs in nursing. Everybody, I may say, was dissatisfied. Schools were dissatisfied with their results, the public was dissatisfied with the services of women employed, nurses were dissatisfied with the criticisms that were being showered on them, and the medical profession was dissatisfied, and finally it seemed to be forced on the nursing profession, if I may speak of nursing in that way, that the remedy, if there was one, must come from within its own body, and as a result came this movement for registration.

It is practically in its aims the same movement, the same idea as that of medical registration. The movement began in this country in New York State. North Carolina succeeded in passing its bill before the nurses of New York, but the requirements are not as good. The nurses of New York State have the advantage of the established working of the University, which made it possible for nurses to become simply one more spoke in the wheels of registration under the Regents.

After the passage of the nurses' bill in the spring of 1903, and the appointment of the board of examiners, of which I have the honor to be one, the Regents called on the board of examiners to recommend to them requirements for the registration of the training school according to the condition of the bill. The board of examiners found in studying the curriculums of a large number of schools all over the country that there was absolutely no uniformity on which to base a standard. Every school, as I mentioned in the beginning, was a law unto itself. Some taught much, some taught little either of theory or practice; and, that hospitals with which the schools were connected should not be unduly inconvenienced in the beginning, the requirements recommended by the examiners were based on a very low standard in comparison with the standards of education which are now established in such schools as the Johns Hopkins of Baltimore, the New York and Presbyterian of New York city, the Massachusetts General of Boston and others of this class.

Requirements for the registration of schools in New York State are very low; indeed, they are almost humiliatingly low; but it

seemed to be necessary to begin on such a low basis that the smaller schools and more particularly the hospitals with which they were connected should not be embarrassed. The requirements for the registration of the schools which are condensed in this circular are very brief. Perhaps I can not do better than go over them.

“The training school for nurses must be incorporated.”

All training schools registered by the Regents of the University of the State of New York shall require of pupils applying for admission a certificate of graduation from a grammar school or its equivalent, preference being given to applicants who have had one year or more in a high school and to those who have taken a full course in domestic science in a recognized technical school.

The suggestion for the recognition of domestic science training is made because nursing is developing very much on these lines. A few of the most advanced schools employ instructors who are graduates of such technical schools as “Pratt” and “Drexel,” and the pupils are thoroughly grounded in these branches, the facilities for such instruction being provided in the nurses building. During the six months’ preliminary training established in these schools before the pupil is placed at the bedside of the patient, the purely theoretic and manual instruction is also given by a corps of specially trained teachers, in such branches as bacteriology, chemistry, anatomy, physiology, bed-making, bandaging, etc. Not all hospitals can afford the special facilities necessary for this kind of instruction; consequently, in their recommendations the examiners suggested that preference should be given to women who have had a training in domestic science schools, because this gives a certain amount of preparation which is recognized to be very valuable, and because the technical schools are introducing such courses for the benefit of the nurses. The Simmons College in Boston, Pratt in Brooklyn, Drexel in Philadelphia and other technical schools in different sections of the country have introduced courses for nurses that they may have some preparation along these lines.

Training schools for nurses registered by the Regents shall provide both practical and theoretical instruction in the following

branches of nursing: (1) medical nursing (including *materia medica*), (2) surgical nursing, with operative technic including gynecological, (3) obstetrical nursing (each pupil to have had the care of not less than six cases), (4) nursing of sick children, (5) diet cooking for the sick including (a) 12 lessons in cooking in a good technical school, or with a competent diet teacher, (b) food values, and feeding in special cases, to be taught in classes not by lectures, (6) a thorough course of theoretical instruction in contagious nursing where practical experience is impossible.

Training schools for male nurses shall provide instruction in genito-urinary branches, in place of gynecological and obstetrical nursing.

Perhaps I ought to explain to some of the members present who may not be familiar with the custom in some schools, that sending nurses out, sometimes during as much as eight months of their period of training, to earn money for the hospital, in the opinion of nurses, deprives the pupils of a part of their nursing education to which they are justly entitled. They are taken away from lectures, school work and instruction to earn money for the institution when they should be working under careful supervision in the hospital.

The period of instruction in the training school shall be not less than two full years, during which time students shall not be utilized to care for patients outside of a hospital. Training schools giving a three year course and wishing to continue the practice of utilizing their pupils to earn money for the hospital may send them out to private cases or for district work among the poor for a period not exceeding three months in the third year of their course. But training schools with a two year course wishing to continue the practice must extend their course to meet the above requirements.

My limit of time makes it impossible for me to go more into the detail of the lines of suggested development. I will only say in closing that nurses believe that the faults of the nursing profession are the faults of education; that, with the much needed facilities for greater preliminary training and more thorough hospital experience, we hope to see many of our defects corrected; and we aim as the years go on to have such courses established not only in the technical schools but in the high schools and even in the colleges, as have been suggested for the medical schools;

and that this movement for registration under the Regents is only the beginning of what we trust may ultimately lead to the recognition of nursing as a profession for women.

Secondary education

THE FUTURE DEVELOPMENT OF EXAMINATIONS

BY DEAN JAMES E. RUSSELL, TEACHERS COLLEGE, COLUMBIA UNIVERSITY

The title of my paper, which by the way was supplied by the powers that be, implies a belief that examinations are to remain a part of school work. Some people say that the school of the future will surely abandon this relic of medievalism. As well talk of abandoning instruction, because without previous examination of the extent and quality of a pupil's knowledge the teacher is unprepared either to begin instruction or to direct its course. Every recitation is an examination. The pupil tells what he knows; the teacher observes the faults, corrects the errors and leads the way to new knowledge. If the teacher wants more precise evidence of what the pupil can do than is conveyed by class recitation, he conducts a quiz or proceeds to make a written test. The purpose always is to help the pupil on in the way he is going. Such examinations, it must be conceded, are indispensable prerequisites to teaching. When they cease to exist, the teacher will be out of business.

There is another type of examination in which the teacher is not directly concerned, and which exists, not for the purpose of forwarding instruction, but rather with the object of excluding the unworthy from some desirable privilege, occupation or profession. Such are the examinations for admission to the bar, for the practice of medicine, for teachers certificates, for civil service, for admission to college, and the like. The object of such tests, as I have said, is primarily to exclude the unworthy, and thus to protect the public. If a candidate fails to measure up to the standard set by the higher authority, his only resource is to fit himself better and try again. Incidentally, therefore, examinations given primarily for protection may be very instructive. The person who fails in such a test learns a lesson that he is

not likely soon to forget. The fact remains, however, that the examination for instruction aims primarily at the good of the individual, while the examination for protection has in view chiefly the good of others.

In considering these two types of examinations, it is apparent that the former—the examination for instruction—is at its best when the pupil is alone with the teacher or when rivalry is excluded from the test. The latter type—the protective examination—necessarily implies competition, there must be some prize or reward ahead sufficient to bring out more candidates than can be expected to win. It matters not that in some examinations of this type all pass successfully; in such instances the standards are so well known that those who come up are reasonably confident of winning, while those who fear a failure remain away. Exclusion actually antedates the examination, but is nevertheless conditioned by it. The instructive examination imposes no penalty for failure. The person examined is encouraged to expose his ignorance with the promise of further advancement. The protective examination, on the contrary, does impose a penalty and inevitably leads to the concealment of ignorance and every weakness that stands in the way of success.

There is nothing to be gained from a discussion of the examination for instruction, unless it be to emphasize the necessity of going about it systematically and conducting it in its various forms more vigorously and impartially.

The examination for protection is quite another problem, and raises questions which wise men hesitate to answer. Take the civil service, for example, what guarantee of public safety can be found in educational tests given to candidates for the police force? Do such examinations disclose the good judgment, courage, honesty and devotion needed by guardians of the peace? Does the examination for admission to the bar shut out all those who are not prepared to see justice done between man and man? Are all those who secure teachers certificates fitted to be guides, counselors and friends of little children? In a word, does the

protective examination protect? Does it secure the best talent to the exclusion of that not so good? Does the best man win?

In answering such questions it should be borne in mind that human agencies are at best imperfect. In rating men and human institutions, it is not a question of good and bad, but of good and better, or bad and worse. The learned professions are better off with a poor system of entrance examinations than none at all. And, as for the civil service, it is frankly conceded that the examination is merely a device to circumvent the petty politician. There may be questions of expediency, therefore of greater import than any that can be raised of intrinsic merit.

But what of the protective examination in school work? We use it whenever we ask pupils to take examinations not set by their teachers in the regular course of instruction. In this class belong some examinations for promotion, and all leaving examinations, whether for admission to college or for graduation only, when imposed by authority outside the school. The competitive feature in the situation is introduced through the fear of failure, and is strengthened by the rivalry that leads to success. The ideal is that only the worthy should succeed; the unfit should be excluded, in kindness both to themselves and to those with whom they might otherwise come in contact. Protection is the particular object of the test.

The educational value of the protective examination is very slight. I grant that it does tend to keep lazy boys up to the scratch, to show the conceited how little they know, to train the nervous and scatter-brained to hold themselves in and do something on time; in short, it does help a boy to pull himself together and concentrate himself on a task which requires all his strength and ingenuity. In this way a boy gains experience in meeting the crises of life. He learns to face his critics, and each success makes him the more confident in meeting other trials. It should be noted, however, that these advantages obtain only in the case of those well prepared; the better the preparation, the greater the educational value of the test. On the other hand, when the candidate doubts either his own ability to pass or the fairness of

the test, the situation is greatly changed. Instead of a calm determination to do one's best, there are feverish excitement and a vacillating purpose. The mind is in no condition to do honest work. But the end must be attained—honestly, if possible, dishonestly, if necessary. Hence guesswork, in place of clear thinking, and even deliberate cheating, if the conditions are favorable.

This is no man of straw that I am setting up. You know, as I do, that cheating in examinations is not a heinous offense in the eyes of schoolboys, or college students. We acknowledge it every time that we put watchers or proctors in an examination room. So accustomed are we to expect it that most of us have lost all fear of the consequences. Nevertheless it is Spartan morals that we are teaching—lie, steal, cheat, if you will, but don't get caught at it. What wonder that college life has its own standard of conduct—"a highly artificial code of morals which thoughtful men would repudiate at once in the domain of business or society." These words I quote from a recent report of the overseers of a New England college. They add: "This peculiar code, which tolerates cheating in examinations, justifies the destruction of private property in the celebration of athletic victories, encourages boorish manners and various forms of reprehensible conduct and causes strained relations between professors and students, was perhaps a natural outgrowth of the inflexible curriculum, and the paternal form of college government which prevailed until comparatively recent years." My own interpretation is that our students feel they do not have fair play in their relations with the instructing and governing body. Student honor in student affairs is impeccable. They are honest and straightforward in their sports and games. Why? Because they see to it that contestants know exactly what is expected of them and the conditions of the contest are so fixed that honest effort is honorably rewarded.

The trouble with our system of college entrance examinations and examinations for promotion is that no written test of two or three hours' duration gives a fair estimate of a boy's command of a subject. The most you can say for it is that it tests his ability

to do the precise task assigned. It affords no adequate guaranty that he can or can not do some other one that may as well be put forward. As matters stand, such examinations afford merely a basis for inference of what a candidate really knows or can do. The judgment of the examiner, therefore, is set over against that of the candidate, all authority given to the one and humble acquiescence expected of the other. Why marvel, then, if boys resent such treatment as unfair! What wonder that under such a system a "highly artificial code of morals" grows and flourishes!

I wish to push the indictment one step farther. Our system of protective examinations not only does not fairly test the candidate's intellectual capacity or store of learning, but it fails utterly to take into account any other desirable characteristic of the educated man. It does not test his physical health, and yet it is safe to say that a good digestion is a better asset in life, even college life, than half the subjects prescribed for admission. It gives no guarantee of gentlemanly behavior, of personal integrity or of clean living. It disregards altogether his esthetic tastes, his capacity to enjoy what he learns and experiences—precisely that possession which makes learning worth the getting and life worth living. And, finally, the examination does not even pretend to measure the candidate's desire to learn or his determination to succeed in what he undertakes. Are these qualifications that can safely be neglected? If all can not be tested, why not make sure of some of them, if needs be at the expense of a little Latin or algebra. What would be the effect of making sound health the sole requirement for admission to college, and a desire to learn, coupled with gentlemanly conduct, the final test of promotion and graduation? Such a scheme may be impracticable, but no one will deny that its ideals are worth striving for.

The attainment of such virtues as I have enumerated above may be difficult and formal examination of them impossible, but that is no sufficient reason for neglecting them entirely, either on admission to college or during the college course. The spirit of fair play demands that a boy be credited with all his virtues, not merely with some and those the least important.

There are other disadvantages of the protective examination in school work, particularly secondary school work, which should be mentioned here. The teacher and the school are involved along with the boy. When he succeeds, they rejoice with him; when he fails, they suffer too. If the examination is fair and the judgment of the examiner correct, the school finds support and encouragement, but any failure to measure results correctly works immediate harm. The secondary schoolmaster is not free to disregard the findings of the college examiner. However honestly he has done his work, he must mend his ways when his pupils fail. He begins by studying old examination papers; he notes the idiosyncrasies of certain colleges or college examiners; he grows wise as the years go by in insulating those places where lightning is apt to strike; in short, he becomes a past master in the theory and practice of probabilities. The pupil under his tutelage learns how to cram for examination; he builds up a showy superstructure too often to the neglect of the foundation. This is a caricature of schooling. It is the concealment of ignorance rather than the advancement of learning. It is dishonest work and, what is more, both teacher and pupil know it. What a travesty on sound scholarship and manly living!

This indictment of the protective examination in school work is not overdrawn. Every teacher in the secondary schools of this country knows that I speak the truth. Many of them could tell the story in such a way as to shame my powers of description. But, for all that, most of us recognize in the system advantages which we would not otherwise know how to secure. How otherwise get a commonly accepted form of secondary school work? The college entrance examination has taught us practically all we know of the scope and general characteristics of the secondary curriculum. How otherwise secure efficient teaching? There may be better ways of bringing incompetent school teachers and recalcitrant school boards to terms than by examination of school pupils, but doubtless we have not yet developed any such agency. The Regents examinations in this State, for example, examinations from which I suffered as a boy, and against which I have protested

ever since, have done incalculable good in upholding decent standards of scholarship and in promoting tolerable methods of instruction in scores of schools which otherwise would not have existed at all, or at any rate have ill deserved the name.

It should be a pedagogic axiom that would-be teachers should themselves be competent to teach. But such an axiom has no place in American education. In some states we have advanced to the point of saying that those who know the least about certain problems propounded in an examination shall be denied the privilege of instructing the young. That they shall all be fully qualified is a desideratum at present unattainable. Till some guaranty can be given that the high school course is really good, and that the character, scholarship and skill of the teachers are all that can be desired, the college entrance examination must remain as our badge of professional incapacity.

If my points are well taken, we shall some day make fewer claims for the all-sufficiency of any formal test in school work. So long as formal tests are necessary, we shall doubtless have them, but we shall not attempt the impossible. Inferences based on the typical school or college examination are not impossible, but they must inevitably be inexact and of merely academic, not to say pedantic, value. An examination is a promissory note which must be taken at its face value. Hence I deprecate the tendency to examine a pupil on what he doesn't know with the expectation that somehow you will ascertain what he does know. Sight translations, original problems, unusual applications of common facts, may all afford suitable material for examination, but they give no evidence of power, except the power to do exactly what is called for at the time. The power that is wanted is the ability to do what comes next. To this end certain intellectual attainments are prerequisite to success. What they are should be so clearly defined that every candidate may know. And what all should know all may safely be examined on. Those who fail in such a test should be rejected, not primarily because of their ignorance, but because they are unworthy of confidence in the position to which they aspire. Success in such a case should

be accepted as one only of many possible evidences of ability to succeed higher up. It is an inference, of course, but experience shows that those who succeed in a fair test of one grade of work may reasonably be expected to succeed in the next higher grade. But whether the future brings success or failure is a result primarily dependent on personal qualities which do not appear in any examination of intellectual abilities—qualities nevertheless which no educator may safely disregard. Hence in promotion from grade to grade, or school to school, or college to professional service, some form of reliable certification of the candidate's personal and moral worth is as necessary as any formal test of his intellectual abilities, and should be given as much, if not more, weight in determining his fitness for advancement. In some such way, I believe, the protective examination may really be made to protect. The principle is recognized in the civil service; why not extend it, and perfect it, in our schools and colleges?

To sum up: Examinations are necessary in all forms of instruction; instruction can not proceed without them. Examinations are often of value merely for the protection of the public, or some public interest. Such examinations have little educational value and incidentally work incalculable harm to the pupil, the teacher and the school. They are necessary, however, when school instruction is inefficient, or improperly supervised. Entrance examinations are imperative whenever the secondary schools are unable or unwilling to assume the responsibility of meeting reasonable requirements for admission to college, and till a form of secondary instruction is established and generally recognized, college entrance examinations can not be dispensed with. The scheme of college entrance examinations is altogether a matter of temporary expediency. It gives merely a basis for inference as to the candidate's store of learning and to some extent his ability to use his knowledge. It does not measure his intellectual desires, his moral strength or his esthetic taste. These are qualities essential to success in life, even college life, and it is therefore imperative that educators find some way of assuring the intellectual ability which students must have on admission to college, and at the same

time of encouraging the preparatory schools to emphasize in their course of training the manly virtues and the liberal culture which all men need in life.

UNDERLYING PRINCIPLES OF SYLLABUS REVISION FOR 1905-10

BY SUP'T FRANK D. BOYNTON, ITHACA HIGH SCHOOL

I have been asked by the Commissioner of Education to state briefly at this meeting the underlying principles of syllabus revision. The Commissioner has also requested that the final recommendations of the syllabus committee be postponed for one year, and that the work of the schools be continued under the present syllabus. This request is made in order that the reorganization of the unified departments of education may be thoroughly effected before taking up the consideration of the all important work of revising the syllabus or state course of study and adopting the same for a period of five years.

Inasmuch as the chairmen of the nine subcommittees have not as yet handed me their reports covering their special fields of study, it will be necessary for me to give an outline quite independent of my official position. It will therefore be understood by the various members of the syllabus committee and by those present that I am giving this outline simply as a teacher of the State, working for the best interests of education as I see it; who emphatically believes in the Regents' system of schools to the exclusion of all other systems as unnecessary duplications; and not as chairman of the syllabus revision committee nor as a member or representative of the academic principals.

Let us briefly consider how we came to have a syllabus and from whence came our present system of Regents examinations.

The first summary statement or syllabus of requirements for examinations conducted by the Regents was prepared by Dr David Murray in 1880. It was published in a pamphlet of 28 pages and included an outline of minimum requirements in 36 subjects. The syllabus of 1882 was also prepared by Dr Murray assisted by a committee appointed by the convocation, and when

published contained 91 pages, outlining a course of instruction in 38 subjects. The syllabus was again revised in 1888 by Dr Albert B. Watkins, assisted by a similar committee, and covered 42 subjects. The syllabus of 1891 was prepared by Dr James Russell Parsons jr, under the direction of Dr Watkins, and covered 69 subjects. The syllabus of 1895 was also prepared by Dr Parsons, assisted by the Academic Principals council, and representative teachers. It contained an outline of instruction in six preliminary subjects and 71 academic subjects. The present syllabus was prepared by Mr Charles F. Wheelock, at the time head inspector of the Regents staff, under the direction of Dr Parsons. Mr Wheelock was further assisted by the committee of the Associated Academic Principals and members of the Regents office staff. This latest edition covers, besides six preliminary studies, 74 advanced subjects and makes a book of 224 pages.

In 1828 the Regents ordained that any scholar should not be considered of academic rank till he should, on examination, be found proficient in reading, writing, arithmetic, grammar and geography; since that time these subjects have been incorporated by the Legislature into the consolidated school law of the State, and thus every tax-supported school is by statute law required to teach these branches. The setting of the questions and the time of holding the examinations were entirely in the hands of the local authorities for 36 years.

In 1864 the Regents took a second advance step, namely, that the examinations should be held at the close of each term and that certificates should be issued to successful candidates.

In 1865 the third advance step was taken, and academies were required to use questions prepared in the Regents office only, but the final reading of the papers remained in the hands of the local school authorities till 1870, since which date all papers claimed by the principals have been reviewed in the Regents office.

Up to 1878 written examinations had been given only in the common English (preliminary) branches. The giving of these

examinations caused a demand for a similar standard of examinations in advanced subjects. The demand was expressed by resolution, after abundant opportunity for discussion in the University Convocation in 1876. This resolution and discussion were followed by others in 1877, as a result of which the first examination in five different advanced subjects was given in June 1878. The subjects chosen for this advanced examination were algebra, United States history, elementary Latin, natural philosophy and physical geography. Ninety-four of the then 235 secondary schools of the State voluntarily took these advanced examinations. In June 1898, 20 years later, advanced examinations were given in 81 different subjects, and 552 of the 645 schools voluntarily took the examinations.

It is interesting to note that the demand for these advanced examinations came from the schools to the Regents and not from the Regents to the schools; also that the question of whether or not a school shall take these examinations is still a local question, purely. The examinations thus initiated and developed made an outline or syllabus necessary.

The first principle of syllabus revision is that the Regents' system of schools as we understand it and as exemplified by the phenomenal development of our high schools in the last 20 years, should be preserved and a single standard of values, if you please, that all may agree to and accept be established, extending to every form and department of educational activity in the State.

Unification and simplification to an utter doing away of all forms of duplication and waste is the chief purpose, the ultimate end sought in syllabus revision. This is one of the results looked for by the friends of unification; it is one of the results to be realized if we read aright the cautious yet fearless development thus far of our unified educational interests.

The second principle is like unto the first and comes out of it, namely, that no academic examination other than the Regents is necessary for any purpose. Our high school and college diplomas have never received the recognition due them as aca-

demic certificates. I have never been able to fathom the wisdom of that feature of our examination systems which examines and re-examines on drawing and arithmetic a college graduate who desires to teach Greek and Latin and nothing else, and then without a single inquiry into his fitness for the work he purposes to undertake, gives him a license, not only to teach Greek and Latin, but to teach any and all of the 80 odd different subjects known to secondary education. A more utterly absurd condition would be hard to find, unless it be that of a pupil who has failed to pass a Regents examination being permitted to enter college by means of a cheaper system. Let our high schools and colleges stand for intellectual attainment in subject-matter; let our professional examinations deal with the purely professional, and do away with this annoying and useless form of duplication and waste. If our high school and college standards are not high enough, let them be raised; but let high school and college examinations be final on subject-matter.

A corollary to this second principle would be that the results of Regents examinations should be accepted for entrance by the colleges the same as are the results of the College Entrance Board. The work of the College Entrance Board so far as this State is concerned is largely another form of duplication and waste. The great virtue of the work of this board lies in the fact that it is an organized attempt to secure a certificate by examinations that will be recognized by all colleges in all states, thereby putting an end to much of the useless and senseless difficulty which a student meets in his attempt to gain admission to many of our colleges; but this is practically what the boys and girls of our State have enjoyed for a generation through the Regents' system of diplomas.

Between the Regents' system, organized in 1870, and the College Board, organized in 1901, there is a striking similarity. Each has a central office; each prepares a set of questions to be given simultaneously at different places; these questions are revised and criticized by an editorial board; they are similarly safeguarded in the printing and handling; they are sent in sealed

packages by express or registered mail to persons designated by the central office to receive them and to conduct the examinations in accordance with a set of rules prepared by the central office; the answers in both cases are returned to the home office, where they are reviewed by a canvassing board with final authority. It is difficult to see how any one conversant with the methods of these two boards can consistently accept the work of one and reject that of the other.

There should be no general upheaval that would tend to disorganize the work of the schools. The principles here advocated do not require upheaval or disorganization, but rather do they tend to simplify and enrich present conditions.

Our syllabus should conform, so far as may be, to the recommendations of the great educational committees such as the committee of ten, the committee of fifteen, the committee on secondary education, the committee of seven, the New England history committee, the American Mathematical Society, etc. Whatever has been worked out by these and similar organizations that can be incorporated in our syllabus should be, and thus the spirit of unifying extended and, further, duplication, repetition and waste avoided.

So far as I have been able to learn, the principals are generally satisfied with the number of subjects provided for and the credits given to each, the specified number of counts required from the different groups for an academic diploma, etc. Some of the suggestions that have been made to the committee are: that eight credits in mathematics be required instead of six; that all questions of law be eliminated from civics papers, and not more than three questions on New York State civics be set on any paper, questions which should be general; that some changes be made in the daily program; that five problems be set and two required on all algebra papers; that less be required in preliminary arithmetic and grammar; that laboratory work in geology and physical geography be given credit the same as is now given in physics, etc.; that United States history be added to the preliminaries, as was generally agreed to five years ago; that 12

counts in English be required for all diplomas; that, if normal schools continue to have purely academic departments and continue to prepare students for college in competition with high schools, they be required to take the same examinations; that greater emphasis be placed on reading in all grades; that an academic examination in spelling be given; that more attention be paid to composition writing after the children have observed some natural phenomena for a period, or read some book, or taken a journey, etc.; that letter writing, the writing of invitations and acceptances, etc., be made more of, in short, that some of the traditional requirements be reduced and time and room made for those things which have to do with the everyday life of all mankind.

Whatever changes are finally recommended to the Regents by the committee, and whatever suggestions may be made by the Regents themselves, should receive the widest publicity. Printed copies should be mailed to all principals, superintendents and teachers; and our educational programs should give ample opportunity for full discussion of details; and let the smaller schools as well as the larger be heard.

FUNDAMENTAL OR CULTURE SUBJECTS ESSENTIAL TO ALL SECONDARY COURSES

BY SUP'T A. W. ABRAMS, ILION HIGH SCHOOL

The organization and direction of our high schools and academies is a complex and yet at the same time a very concrete problem, the solution of which must vary in different schools, but should everywhere be in accordance with certain fundamental principles clearly conceived and somewhat rigidly and consistently followed. I have in mind in this discussion not so much a general theory of education as specific conditions which seem to me to exist in this State at least.

Our question needs to be considered from two points of view: first, what subjects are to be incorporated into our courses of study; second, in what manner these subjects are to be pursued. While the first element of the question is primarily the one as-

signed me, the second element is directly involved, and is, I hold, of even more importance than the first. I would point out that, while much excellent work is being accomplished and while progress toward better things is being made all the time, our schools as a whole are not yet striving for the highest ends and are not realizing the best results possible. The limits of the time assigned me necessarily make my treatment of the subject somewhat dogmatic.

In recent years much has been said and written on the comparative value of studies. The necessity of the question grows out of the extension of the studies of the school beyond the limits of the ability of any one student to pursue them all in the time given. It would seem that almost every phase of the question had been treated fully and by those competent to speak. There is little left for the practical school man to do but to sift the mass of discussion at hand, observe what underlies it all, formulate some definite working plan, and then hold to it long enough to realize all of its possibilities.

Assuming for the present the existence of courses of study in our secondary schools, let us consider what are the fundamental or culture subjects which should be a part of every course. Most persons will agree to include algebra and geometry, there being no other studies in the mathematical group that can be considered parallel and equivalent. But I am satisfied that, if we are seeking a *complete* list of *specific* subjects which should be included in *all* courses, we may as well admit at the outset that no such list can be named. If general culture means "the capacity to understand, appreciate, and react on the resources and problems of modern civilization," as Professor Hanus says it does, then the number of subjects and the number of courses adapted to this primary purpose of the secondary school have been largely increased, and some choice is a necessity. There are, however, certain principles of selection to which all culture courses should conform.

1 When we attempt to arrange a culture course from the existing studies, we select first of all, not specific branches but broad

groups of studies from which types may be chosen. We all recognize certain broad fields of thought and investigation—language and literature, mathematics, natural science, history, and art.

All of these groups should be adequately represented in every secondary course of study that makes any claim to affording opportunities for general culture. Let me say in this connection that the history group does not seem to me to be adequately represented in the present requirements for a Regents diploma. I can not believe that United States history, civics, and economics, specially as they are frequently studied in our schools, insure proper training and insight in the method and spirit of historical studies. Yet these subjects are often the ones offered toward a diploma.

2 We would next look to see what studies within these groups are the broader and more fundamental. These should be required in place of the shorter and less comprehensive ones. For example, to go to the history group again, so far as general culture is concerned, there can be no serious question as to the relative value of English history and civics. The one deals with a great nation throughout a long period of time, touches closely the life of a continent of centuries, and shows the origin of many of our most vital and characteristic institutions. The other, as commonly studied, does not involve the element of time, is limited in scope and consists largely in memorizing lists of officers, their duties and salaries.

3 Laying aside the question of the relative value of so called formal and real studies, we at least recognize the ultimate objects of study to be man and nature. Because they do more to make the individual reflective and conscious of his relations to society, those studies relating to man himself should occupy the larger place in our courses of study. But, as we can not go far in these days into the study of man without discovering the dependence of his higher life on nature, natural sciences should have a place in our courses of study. It is not a question of their being of more or of less value than other studies. They merely give something of large value not to be gotten elsewhere.

4 There is yet another principle to which all courses should conform, that of longer continuity of study in a limited number of subjects. Colleges have long recognized this idea, and have given little or no credit for 20 week subjects. Much of the value of the old, rigid classical course lies in the fact that long and close attention must be given to things so related that there can be no omissions in the student's work. Then, too, comparatively long continued study is required in any given field really to put the mind in such possession of its facts that they can be used with ease, freedom and independence. The key to interest, of which so much has recently been said, is success and not variety. A limited number of lines of work should be pursued far enough for the sense of mastery to begin to possess the student.

The embodiment of these principles into our courses of study does not involve absolute prescription of particular branches, but it does place proper limits on the student's choice, or rather guides him in his choice. For, in the grouping of subjects in courses, some regard will be had for the demands of different classes of higher institutions and of different vocations of life. The student will see for what each course is an approximate preparation, and will make an intelligent choice of a course of study rather than a haphazard choice of branches.

I have already indicated that the time, manner, order and spirit of pursuing studies and their proper grouping count for very much. Too little attention, I believe, has up to this time been given to applying in our schools well established principles of organization and teaching. Let us see more specifically how we are failing to realize adequately the highest culture value of studies.

1 Teachers are not working with clearly conceived notions of the purpose of school exercises. They have in mind getting the class through the subject, not leading the student to react on the ideas presented. They strive to put into the mind a product which will enable the student to pass the examination, not to teach him the processes of thought, not to refine his tastes, not to give him life purposes and self-mastery.

2 Many schools are attempting to give instruction in a wider range of studies than warranted by their equipment and the extent and training of their teaching force. While certain schools are classed as junior, middle and senior, and while some high schools are large and some are small, no restriction whatever is placed on the number or kind of subjects in which they shall give instruction and conduct examinations. The result is waste in teaching force and equipment, and consequent loss to students. Many schools that could provide suitable equipment and competent teachers for a limited number of well selected studies are failing to get the best and most permanent results, because sound principles of pedagogy and organization do not underlie the selection of the studies offered by the school, in fact, in too many cases the school really does not offer the subjects at all, but the students practically determine themselves what shall be taught.

3 The time element in the pursuit of particular studies is ignored. Sufficient regard is not had either for the time when studies are taken up or for the length of time they are continued. While some attention is doubtless everywhere paid to the order in which subjects are taken up, still in too many cases classes are composed of students unequally prepared by previous training for the grade of work to be done. However, it is the shortening of the period of study against which I would make the most emphatic protest. Economics studied at the proper time and in the proper manner doubtless has culture value. But, when only three periods a week for seven or eight weeks are given to it, it is apparent that the subject is taken primarily for counts. A year's credit for chemistry is being gotten for half a year of study. Physics is being taken on short time study. Students in elementary United States history are being encouraged to take the examination in advanced United States history. Business writing, commercial geography and other subjects are being applied toward an academic diploma, and without any special study of them.

4 Violence is done to the principle of continuity. One foreign language is scarcely begun before it is dropped for another. The work in English is interrupted and made to give way for every-

thing else with which it conflicts on the daily program, and the longer and more fundamental branches are broken off to be replaced by short, unrelated informational subjects. Under such procedure students do not acquire those masses of apperceived ideas which make them confident and self-reliant. Their thoughts must be halting and disconnected. Is it any wonder, either, that on leaving school they cease to be students? Indeed, have they ever been students at all? The examination has been the end; the end accomplished, there is nothing to carry them on. No deep and abiding interests have been awakened by the years spent in school, and hence the value of the work done is small.

5 Work is not planned and conducted with sufficient reference to expression. Too much credit is given for what the student absorbs, too little for what he can give out of himself. For most of the work of the secondary school the standard of measurement should be the ability to use the English language with clearness and precision in the discussion of all subject-matter pertaining to the studies of the course taken. So far as our present courses in English deal with literature, they are no more studies in English expression than are geometry, history, botany or Cicero. Credits for expression in any of these studies should be given on the same basis as in the English studies.

In all that I have said I have implied the absence of guiding courses of study. Our question assumes the existence of such courses. But in this State we have an open list of 74 branches valued at 199 counts from which the student can take with few limitations whatever he chooses, and, if he makes 48 counts, can receive a diploma. Unfortunately in too many cases this minimum standard is the chief standard of the school. Now, it is impossible for one to meet the requirements for college entrance with a 48 count diploma, and such diploma can not be said to insure the elements of general culture to its possessor.

It has been claimed that the State can set only minimum requirements, and that local school authorities must be left free to arrange their own courses of study. This is doubtless true, but the State can see that acceptable courses are prepared and fol-

lowed. In most cases, I am sure, principals and boards of education would be glad to have their hands strengthened in this particular by the state authorities, and in the long run the people would prefer to have the school for the support of which they pay liberally and in which their children are being educated conducted for genuine and permanent results and not for show. It would be no more difficult for the Department of Education to require that schools submit courses of study for approval and see that students are graduated only on the completion of these courses than to require that school buildings be constructed according to approved plans, and I think it no less important. The law does not state of what shape or size we shall construct a schoolhouse, but it does insure certain conditions as to light, ventilation, and volume of air. So all courses of study could easily be made to conform to certain standards and conditions prescribed by the Department, the enforcement of which would go far toward increasing the efficiency of the schools.

Regent St Clair McKelway—My friends, there is a further division of this many-form, this multiform subject. I think that, when we have considered this last department of it set down here, we shall be thankful that the subject of education as affected by a relation to questions and training belongs to the preparatory part of our educational history, and that, after we are permitted to earn our living or to make our career, the effect of all this on our minds is regarded as of more importance than our necessity of keeping constantly up to the preliminary standards. The subject which sequentially follows is entitled on the program—a word which I venture to call *prógrám* instead of *prógram* as I have often been admonished I should from the front—"Secondary Subjects Essential to Professional Students." Dr William M. Polk, dean of the Cornell University college in the city of New York, is assigned to the discussion of the first branch of this subject. He will be followed by Dr F. D. Weisse, of the New York College of Dentistry. Dr Polk is, I hope, present, and we shall certainly be glad to hear what he has to say, from the front. If he is as successful in bringing into the domain of ideas the

subject to his hand as he is in bringing into the theater of life the subjects to his hand, we shall none of us want his topic to be born again after its matriculation under himself.

SECONDARY SUBJECTS ESSENTIAL TO PROFESSIONAL STUDENTS

BY DEAN WILLIAM M. POLK, CORNELL UNIVERSITY MEDICAL COLLEGE,
NEW YORK

After the very graceful introduction on the part of the Vice Chancellor of the University, I feel even more poverty-stricken than before I entered the hall, for I am quite sure that expectations have been raised that I know will be far from being fulfilled. When I received the invitation to present this subject to this audience, I took it as meaning that the speakers were to act as suggesters and in that way afford ample opportunity for discussion, but I have found that the subject-matter appears to be dealt with from beginning to end by the speaker, and as yet I have heard no criticism of the views which have been advanced. I trust therefore that the audience will accept what I have to say as food for criticism—if not here, at least for some other occasion when such criticism may serve a useful purpose.

This whole question of the education necessary to professional work is one that comes home with peculiar force to physicians, for we realize that the last fifty years have put us before the community, before the world, in a light which we never occupied before. Formerly having to deal with a subject which many regarded as largely speculative, we have come to deal with a subject that in its exactness is making rapid strides each day. The kind of education therefore which was formerly deemed an essential to a fair entrance on the pursuit of the study of medicine is one which hardly holds good for today, and what I have to say is for the purpose of imprinting that point on my hearers and particularly on the Board of Regents, who guard and direct so wisely the educational function of this State.

The minimum of liberal education required for entrance on the study of medicine ought not to be difficult to state, and yet, owing

to a difference in standards throughout the country at large, divergent opinions abound. Some maintain that nothing short of a college degree in arts or sciences should prevail, and some institutions have so adopted. Others vary in degree of exaction from the public school certificate to one or more years of the college course. Owing to state lines and necessities, it is evident that for the present at least, each, as with this State, will fix its own standards. Speaking then from the standpoint of one of the universities of this State, I will briefly present some views as to the requirements which we feel at present should be made obligatory for every student intending to seek our diploma.

Wisdom is more the result of heredity than culture; but, wise as birth may permit us to be, culture adds greatly to it, and, if there be a calling in which cultivated wisdom is needed more urgently than in the one which deals with the problems of life and death, I fail to recall it.

There was a time when there was so much that was speculative in medicine, as I have already said, that rigid preparation for its study was thought by many unnecessary. But not so now. The untrained mind that attempts medicine today does both itself and the subject great injustice, and if this variety of mind is present in sufficient force in any given institution, it will either lower the standard of teaching and of examination, or put the institution out of business for the lack of a graduating class. If we are to make good doctors of medicine, we must have every hour of the four years allotted us in this State for purely medical subjects; the first two years for foundation, the last two for superstructure, and this exclusive of time needed for specialties, exclusive of all of that time which is needed for specializing in the disorders of the various organs, such as the eye, ear, throat, et cetera. We can not divide our time with any other study, be it cultural or other. The ever increasing demands for professional excellence compel us to fill our first two years, for instance, with a grade and an amount of laboratory work which can not be duplicated outside of institutions specifically given to such work, and students who attempt to enter the second year of such a course without

having had, not the equivalent, but the exact course itself, as given in the first year, are sadly handicapped from the outset.

We are building then our educational structure so compactly and strongly that nothing can be introduced from without that has not been previously fitted along practically the same lines, in the same fulness and completeness. We also require trained minds to begin with. These statements enable us to pass to the question of combined courses and then to the amount of general education needed as a foundation to medical study. I am firmly convinced that combined courses are not in the interest of the student at any part of his course and far from being in the interest of medical education. Our experience in the Cornell Medical College leads to a similar antagonism to the teaching of medical subjects for medical purposes in institutions not essentially medical. That variety of curriculum is a sort of combination which cheapens everything it touches, the subject, the men who teach, the students who work, and the institution that fosters it.

If we mean to create the best system of medical education, and indeed I might also say cultural education, the line must be sharply drawn between the two, and the nearer we come to the creation of an atmosphere peculiar to the object sought, the better for all concerned.

This brings me to the question before us, The Secondary Subjects Essential to the Study of Medicine. Owing to the purely technical nature of this part of the subject, what we need is the trained mind, or the mind well on in the training course, not to the point of destroying initiative but to the point of self-confidence in the new field entered. We need exactness, accuracy and order of method, preciseness and conciseness of thought and statement; we need breadth of comprehension and knowledge for comparison and then we need memory. In fact, we require that amount of mental training and general culture which is acquired in obtaining the high school diploma through counts obtained in mathematics, in English, in Latin, in German or French, in history and civics, in physics and chemistry. This should be the minimum in preliminary education required for admission to the study of

medicine in this State. It may be asked why physics and chemistry, and the reply is that these subjects are essential at the threshold of medicine. Initial medical subjects can not be comprehended without adequate training in each of them, and they run a constant accompaniment throughout the whole course of medical study.

In conclusion let me again say that the all-essential in the medical student's mental attitude is quickness of perception, and the power of accurate observation. The form of instruction which will contribute most to these ends is that which will unquestionably give the best results in our department.

I know full well there are those who maintain that no one should be allowed to begin the study of medicine who is not in full possession of a college degree; but before making that statement, they should begin by letting us understand what they mean by a college degree, for those of us who are here know full well that the requirements for graduation in so called colleges throughout this country differ to a considerable degree. While therefore I am sure that there are certain classes of schools which perhaps will require the degree of the best colleges as a preparation for the study of medicine, I assume that this institution, the University of the State of New York, will for the present recommend a position which can be taken up and maintained by all of the medical educational institutions throughout the State. I hope my comments may be of some use to that end.

Dean Faneuil D. Weisse—Much that has been said by the last speaker on the question of secondary education as bearing on a medical education applies equally to the profession of dentistry and to the needs of the dental student, who is called on to acquire a knowledge of the fundamental departments of medicine, added to which are the special departments of his surgical specialty of dentistry. I have therefore nothing to add to what the last speaker has said, as he has most forcefully declared the standpoint of the needs of the student who is a candidate for the profession of medicine in any of its departments.

I wish to preface my remarks by taking advantage of this opportunity to call attention to the present position of the State of New York in being the only state in the Union which today possesses established and accepted bases of professional preliminary education, namely, in the existing medical student certificate, dental student certificate, law student certificate and others. For this position the State has to thank the silent, conservative and evolutionary work that has been carried forward during the past 10 or 12 years by the Regents of the University of the State of New York.

I would also call attention to another accomplished good work of the Regents of the University of the State of New York in the unique—New York State the only one possessing it—and admirably perfected system of public Regents examinations, by which intellectual culture, outside and beyond the school period of life, is made possible to men and women of all ages and conditions, the same being acquired in the leisure hours from their daily vocations. I do not think this work receives the full appreciation that it should as a factor in the intellectual uplifting of the community at large.

Now to the question of secondary subjects essential to professional students. One of the papers on the subject of secondary education, the synopsis of which I have before me, asserts: "A tentative definition of secondary education is equivalent to high school education." Further on, after presenting certain points, it says: "The resultant program is partly cultural, partly commercial, partly industrial, or it is a heterogeneous adaptation of these three elements, and secondary education lacks unity of purpose." From all the subjects presented to the high school pupil in the curriculum of the high schools, 74 in number, he is allowed to choose 48 counts in the first, second, third and fourth years. There is no purpose in the selection of his studies as regards his future life work. The Regents of the University, in their establishment of the medical student's certificate, the dental student's certificate and the law student's certificate, have pointed the way to a possible solution of this heterogeneous character of the high

school education and to that end I would suggest the following further step.

For several years I have urged on the secretary of the Board of Regents the propriety of establishing in the high schools special certificates, namely, medical, dental, law and for other professions, each having its special curriculum which the high school pupil could elect to pursue with the intent of earning the same as the preliminary education for the profession of his choice. For these special certificates academic subjects could be so selected as to constitute collectively a liberal education preliminary to the professional education. If this could be carried out, it would be the crowning achievement of the educational system of the State of New York. It would take away the heterogeneous character referred to of the secondary or high school education in that the pupil could select the specialized course toward his professional career, and every step that he would take under those circumstances could be guided by the judgment of those who know what he wants, so that the high school pupil would really commence his professional education at the commencement of his high school work.

The educational periods of eight years of public school—six to 14—and four years of high school—14 to 18—should prepare a candidate with a sufficiently liberal education at 18 years to enter a professional college or university department, so that at 21 or 22 years he would be prepared for his professional career. In this country life is so strenuous that we should not make a moneyocracy (excuse the coinage) of a professional education, so that only the rich man can afford to put a son in a profession, because of the years of time of support and the expense of education entailed by unnecessary lengthening of courses of study.

The curriculums of the several professional student certificates could be determined by the faculties of the respective professions in the State, and through the respective professional councils already created by the Regents of the University of the State of New York, they could be presented to the educational authorities

of the State to be incorporated in the forthcoming syllabus of 1905-10 as specialized high school elective courses. At first these specialized courses would be purely elective, allowing the broad elective system of high school education to prevail as in the past for the obtaining of these student certificates, but time would soon bring about the ultimate election by the pupil of the specialized curriculum that his future chosen profession calls for.

All professional student certificates should have: (1) as a fundamental element an English education of 8 count value; (2) a history element of 6 to 8 count value; (3) a language element of 8 count value—Latin or the equivalent of a modern language; (4) a mathematics element—fundamental and applied—of 8 to 10 count value; (5) a scientific element of 6 to 8 count value; (6) special academic subjects of 6 to 8 count value.

In the special interest of the medical specialty of dentistry I would ask so far as the prospective dental student is concerned, that more of the high schools of the State be equipped with plants for manual training or shopwork which would be among the academic subjects. I make this point at this time to draw special attention to this need. Not only is it important to the future dental surgeon, but this manual training is also important to the skilful surgeon. It is to the interest of the medical profession in general that provision be made for more general manual training in the high school of the State.

Prof. George A. Ferguson—[Abstract] I petition on behalf of the colleges I represent, to have the examination include the following: (1) a subject not included in the academic counts, arithmetic; (2) elementary physics; (3) English; (4) Latin or German.

Regent McKelway—If there is any one present who would like to ask any of the speakers who have specially addressed us any questions, I should be glad to have him avail himself of the opportunity.

There will be a meeting in this chamber tonight at 8 o'clock of a more general character than those held here during the day. The speakers will be Dr William J. Milne of the New York State Normal College in this city, who will talk on the startling proposition that qualifications for teachers are not determined by

examination—we have apparently been discussing the reverse of that proposition—and Regent Charles A. Gardiner, whose address will be on “The True Expansion of the Empire State,” by which, I beg with some knowledge to say, he means the true intellectual and moral expansion of our commonwealth.

Elementary education

Regent Daniel Beach—It affords me great pleasure to be put in this division, and to join with you this afternoon in any discussion that may be had, for the reason that in my early life my work was in the elementary schools in this State. More than 50 years ago I began to study the subject of pedagogy, as worked out by the old state normal school, then located in this city. As a pupil in school I was favored by having as my teacher one of the early graduates of that school. From him I learned some of the primary elementary things to be done in the conduct of schools. The influence and inspiration of the first principal of the Albany State Normal School, Prof. David R. Page, reached all over the State. His great work, *Theory and Practice of Teaching*, may now be considered old-fashioned, still we of the older generation of teachers owe to it much of the measure of success we may have attained in our teaching in the elementary schools.

I feel at home with the teachers of the elementary schools, also with the teachers and principals of state normal schools, whose work was primarily intended to subserve the interests of the elementary schools of the State.

Though for nearly 20 years I have been associated with the Board of Regents, having charge of higher education, my sympathies and solicitude have been with the elementary schools. Their work lies at the foundation, and, unless we have properly conducted elementary schools and proper instruction in them, we can not have successful work in the high schools and academies.

THE FUNCTIONS OF A NORMAL SCHOOL

BY PRIN. C. T. MCFARLANE, BROCKPORT NORMAL SCHOOL

Today in all civilized countries, but more specially in our own, it is a matter of common belief that a body of educated people

is at all times far more safe, sane and orderly than an equal number who are uneducated. Because of this, it is generally held that it is entirely proper for a government to insist that each child be given at least an elementary education, and to this end compulsory education laws have been enacted in nearly every state in the Union.

If this faith in an educated people is justified by the facts, and the right of the State to insist on public education is acknowledged, the establishment of schools, the outlining of the principles to govern in the construction of courses of study, the training, examining, and all licensing of teachers, and the inspection of the work done by them are duties which an enlightened government is morally bound to assume.

It goes quite without saying, that the supremely important thing, from every point of view, is that the teaching, whatever the amount, should be of the very highest attainable excellence.

Good teaching, however, can not be secured without good teachers, nor these without training. Attempts to find the right kind of teachers and eliminate the poor ones, by means of a system of examinations and licenses alone, have failed. In the long run teachers selected in this way have proven much less satisfactory than have those who were trained for their work. This has resulted in the creation by the State of institutions for the training of teachers. Of these the normal schools are by far the most important.

If, then, the question be asked, "What is the function of a normal school?" there can be but one answer, "To train teachers." That is the purpose for which normal schools were created, and it is the duty of every one concerned with their management to hold them steadily to that work. In a sense they are, or should be, as severely technical in character as medical and law schools or theological seminaries.

The important thing for us to consider at this time, however, is the fact that, when for any period of a person's life the State insists on his attending school, it thereby becomes morally bound to guarantee the efficiency of the instruction given and, when other sources of supply fail, to train the teachers.

It is not intended to argue that there is no need of professional training for teachers in secondary schools, nor to intimate that in this training the State has no interest. Quite to the contrary. Every wise government has the greatest interest in secondary education and secondary teaching, an interest which our own state government has abundantly manifested time after time. But it is important to make note of the fact that the State's first duty is to the children who are, under the law, forced into school often against their will.

The time was once, and that not so long ago as to be lost in the mists of antiquity, when the opportunity for a free education offered to the majority of children living outside of the larger towns and cities was limited to that afforded by rural or so called district schools. It was natural enough, therefore, that in the early days of normal schools many of their graduates took positions and did their teaching there. Indeed, there are some who maintain even now that normal school graduates should be required to do their teaching in the district schools.

To insist on that, however, is as undesirable as it is impossible. The past 65 years have witnessed great changes in this country, not alone industrially and socially, but educationally as well. The density of population has increased enormously; hamlets have become villages; villages, towns; towns, cities; and in thousands of localities new settlements have come into existence. But far more important than the mere fact of an increase in population, so far as education is concerned, is the source of that increase. During all of these years there have been poured into this country millions of the uneducated of Europe, whose children, with generations of illiteracy as their inheritance, have been taken into our public schools to be made into right-minded, clean-hearted intelligent American citizens.

Such conditions as these constitute awful burdens under which to attempt to make progress, and yet, in spite of it all, progress, most wonderful progress has been made. Educational values have been discussed and to some extent measured; the principles underlying the construction of courses have been agreed on; the

work of the early school years has been properly graded; the great desirability of a free education much more liberal than is required by law has become a matter of general recognition, and in many places provision has been made for it. All this means that the day of the old-time district school has gone forever. Instead, we now have a great school system with the elementary work fully graded and properly articulated with that of the secondary or high schools.

It is attendance on instruction in these elementary schools that the law requires. It is for teachers in these grades that there is great demand. It is as teachers in these grades that the majority of normal school graduates now find positions. It is the function of normal schools to train teachers, but more specially to train teachers for the grades of the common schools. It is true of course here, as in every other field of human activity where the demand for skilled workers is greatly in excess of the supply, the better of the positions open to them are taken by the normal graduates, and the poorer ones left to be filled in some other way, means for which have been provided.

If this then is the function of normal schools, what now is to be said of the academic training of this to-be teacher, and where is it to be provided? It is universally acknowledged that the teacher's knowledge should cover a field much greater than he will be called on to cover in his teaching. An academic education which includes a four year course in a good high school ought to be sufficient preparation for grade teachers.

While the State insists on only an elementary education for all of its citizens, it nevertheless recognizes the desirability of an education much more liberal. In our own State, through the Department of Education, encouragement has been given to all communities so minded to establish schools offering a full or partial high school course, the latest act of legislation along this line being the authorized expenditure of \$100,000 in the payment of tuition in high schools for students not resident in the districts where high schools are located.

With academic privileges thus liberally provided, there seems to be no reasonable excuse for any technical school to enter that field of work. If the teaching in the high schools is not good, if the results secured are not satisfactory, true economy demands that steps be taken to remedy the evils where they exist, rather than to multiply needlessly academic departments. An agreement on the part of high schools to furnish the needed academic preparation and on the part of technical or professional schools to accept this academic training at its face value would seem to be an arrangement not only economical but also mutually fair.

Such academic preparation as is necessary for a technical course ought to be demanded as a condition of entrance to technical schools. All this applies to normal schools. Almost continuously since the day they were established, they have been charged with being state high schools, giving work almost purely academic in character and utterly lacking in all of the qualities which would justify their existence as professional institutions. Though a good part of this criticism is and always has been prompted by motives which will not bear investigation, candor compels the admission that in the very earliest days of their history there was some truth in the charges. Originally the most bitter complaints came from those interested in the old-time academies, some of whose tuition-paying students the new schools attracted. With the growth of the free high school system these complaints have gradually died out, existing only in the immediate neighborhood of the normal schools themselves.

It will profit a little perhaps to ask why the normal schools ever attempted academic instruction, and if such be the case, why academic work is still continued. In the early days of normal school history it was found that the students admitted came with but a meager academic preparation, and that in order to guarantee the soundness of the scholarship of their graduates a considerable amount of academic teaching was necessary. A four year course of study was adopted, and provision for this academic work was made therein. This action was made necessary by the conditions of the time, but, as educational conditions changed

and the elementary courses were graded, and high schools were established, this four year course of study was from time to time changed in character, till at the present time it is far from possessing the academic aspect which it once had, though it can not be said to have lost it entirely.

At the present time even the entrance examinations for admission to these four year courses are such that they may easily be passed by a student properly prepared to enter on a high school course. If of legal school age, a student who passes these examinations may complete a normal school course and obtain a license to teach in the same length of time that it would take him to complete a high school course.

Again at the present time the legal age for entering a normal school is set at such a point, 16 years, that in a properly graded system of schools the student finds it possible before reaching it to be well along in the high school course. And this age, which is the minimum, might with profit to the profession be made greater.

Reviewing the facts as already presented, therefore, we have the following reasons why a high school graduation should be demanded as a condition of normal entrance.

1 The vast majority of normal graduates are employed in the grades of the common schools. Children can not be properly prepared for high school work unless the teachers who have that preparation in charge know from personal experience what that high school work is to be.

2 Professional institutions may reasonably demand for entrance the academic preparation necessary to pursue with profit their technical courses.

3 It is universally acknowledged that a teacher should know more than he is called on to teach, and an academic education which includes a four year high school course ought to be sufficient preparation for grade teachers.

4 The general establishment of high schools capable of giving this academic preparation makes it no longer necessary to continue in normal schools courses of study, any large part of which is made up of purely academic work.

5 The age at which it is profitable for a person to take up preparation for teaching is such that a high school course may reasonably be completed before entering a normal.

This paper has, therefore, been devoted to the following claims:

1 It is the business of normal schools to prepare teachers for the grades of the common schools.

2 High school graduation should be demanded as a condition of normal entrance.

3 The courses offered should be purely professional.

Of the work to be done by pedagogic institutions of higher and lower grade nothing has been said, because these have their own problems which are being discussed by others at this meeting. It may not be improper to hope, however, that some way may be found to acceptance at its full value of the work done in any pedagogic institution by the one of next higher grade.

THE FUNCTION OF THE TEACHERS TRAINING CLASS OR SCHOOL

BY SUP'T S. R. SHEAR, KINGSTON

The topic for discussion naturally divides into two distinct parts, and, in the consideration of the various questions which will arise, we must necessarily take some things for granted.

I think we shall all agree that, in our process of educational development, we have arrived at a point where the professional training of teachers should be mandatory, not because the remuneration warrants a teacher in making adequate preparation, but because the public are demanding trained teachers, and because teachers are demanding increased recognition, increased compensation, and they desire as well to have their work regarded as that of a profession. Never can these conditions be realized till training is demanded on the part of every teacher.

To meet this demand for professional training, the State has provided 12 normal schools in as many sections of the State. Each school is thoroughly equipped, and is prepared to furnish instruction and training to prospective teachers from any part

of the State. I think in number of schools, course of instruction, completeness of organization, adequacy of equipment, our state leads all others in facilities for professional training of teachers. One not acquainted with our conditions might wonder what more is needed, and why.

As we discuss the function of the training class and the training school, it will be necessary for us to answer these questions. That each has a function at the present time and under present conditions, scarcely admits discussion. My experience with both has led me to believe that each performs an important office in the work of training teachers.

I think we may ask regarding either, why this particular means of training rather than a normal school? Does the training class or a training school benefit any one who could not secure equal or larger privileges in the normal school? Does your organization benefit your local system professionally or financially? Do you do anything which can not be as well done, and perhaps better, elsewhere? Are you not, by furnishing local training for local teachers, bringing about conditions which are positively pernicious? Would it not be better to dispense with both training classes and training schools, and depend entirely on normal schools? These questions are being asked by fair-minded educators, and they should be answered fairly and as fully as possible.

First, the training class. Our rural schools above all, have suffered in the past, and still suffer, because of untrained teachers. Here in the rural schools is the first great demand for better teachers.

The demand for normal graduates in city and village schools is so great in proportion to the supply that normal graduates are seldom found in the rural schools. I think this condition is established, independent of the question of salary. Of course, the rural schools, as a rule, pay less than the village or city schools, and are less desirable on this account, but the more thorough grading and more desirable conditions would lead normal graduates to seek positions in villages or cities inde-

pendent of the question of compensation. Obviously then, we can not look to the normal schools to train teachers for the rural district. Training schools established in the cities are preparing teachers for the particular city in which the school is located; hence, it seems to me the preparation of rural teachers devolves almost entirely on the training classes.

In every country district, we find young people who have had very few educational advantages, yet who are ambitious and who are anxious to do something to earn a living and to make something of themselves. To many of these, the normal school is out of the question.

The requirements for entering the city training schools are as high as for entrance to the normal, the course is nearly as long, the distance is sometimes greater, and the expense is fully as much. These young people then must enter a training class near their own home.

The functions of these classes are many and important. A very considerable part of the work is the observation and practice. That this may be done intelligently and systematically, it is necessary that the training class teacher instruct the members how to observe intelligently. Outlines should be prepared and discussed, indicating important points to be observed regarding the room, the teacher and the pupils. Observation thus becomes systematic, and the subsequent discussion is definite and valuable.

I believe that observation is conducted with less system and less value than the practice itself. I believe there should be a large amount of observation before practice is attempted. Mere theoretic discussion of schoolroom conditions is a very poor preparation for a practical application of psychologic and pedagogic principles. Practice should of course be carried on under careful scrutiny and wise criticism.

Every teacher in a union school in which a training class is organized is inspired to do better work, to maintain better discipline, to employ better methods, to insist on more hygienic conditions and more thorough organization because she knows her

work is to be observed. Contact with the training class teacher inspires her with a greater professional spirit, with higher ideals and broader views.

The effect of this on the school is apparent to the public with whom the school comes to hold a more commanding position, and the ultimate result must be greater appreciation of teachers and increased compensation.

The presence of a training class made up of young people having a definite purpose and an intense earnestness has a powerful influence on all the pupils in the school, specially the high school students. Discipline is improved, there is greater earnestness in the work, and a greater spirit of loyalty throughout the entire school.

The effect of the training class teacher on the members of her class changes the entire tenor of the life of each individual. Many are led as a result, to take a full high school course, or even a college or normal course. The school spirit growing out of the training class organization is sometimes tremendous. Not only does the class benefit the school in this respect during the course, but the members as they go back to the rural schools as teachers will impart this enthusiasm to their pupils, with the result that a larger number and better prepared pupils will go to the village schools each year, and they will go imbued with the spirit of loyalty taken on from contact with their teachers. The training class alumni are a very strong factor in filling up the village high schools and in leading country boys and girls to look for something beyond the three R's.

When rural schools are taught by trained teachers, a greater degree of interest is manifested by the inhabitants of the district, with the result that the attendance is increased, a more thorough spirit of cooperation exists, and as a result, salaries are increased. Oftentimes increased experience and continued study on the part of individual training class teachers, enable them to work back into the village and even into the city schools. A large number of these are constantly working to secure the state certificate, that they may have a life credential without the loss

of time and expense incident to attendance on a normal school. Fortunately, the number of young people entering the commissioner's examination is growing smaller year by year, and this condition is directly traceable to the training class, and to the higher standard demanded all along the line.

From a financial standpoint, I think the villages and towns supporting a training class receive more from the State than the actual cost of maintaining the class; but, be this as it may, the mere money considerations can scarcely be weighed against other and more important considerations.

The time is past when the training class is maintained simply to secure an appropriation from the State. The training class teacher no longer instructs the training class incidentally. She must be prepared for her work, must give her time to the work, and must insist on professional work on the part of the members. There has been a wonderful advance in these directions within the last 15 years.

I have not attempted to compare the work of the training class with that of the normal school. These two can not be compared. I have simply indicated the function of the training class as such. Its position is unique, and so long as the rural school exists, its necessity is imperative.

Again, as to the training school. The necessity for such an organization arises from conditions entirely different from those above enumerated: The training school has to do with the preparation of city teachers, and the question, why the training school rather than the normal school, assumes a different aspect.

Of course, in every city there are certain bright, capable girls with aptitude for the teaching profession, who, for pecuniary and other reasons, are unable to leave home, and to take a normal course; but this is only one of the many phases of the question. In most cities, the majority of the teachers are local, and must necessarily be so. I see no particular reason why it should not be so, and the question of their training is of first importance.

The requirements for admission to the training school are as great as for entrance to the normal school, and, while the two

years course in the city training school is not equivalent to the normal school course, it is, in some respects, preferable.

Observation and practice constitute a very important part of the work. Most normal schools of the State are situated in small towns where opportunity for observation is limited. The members of the city training school have a much broader field for observation and for practice. Furthermore, they observe real rather than ideal conditions; they observe the same methods of instruction and discipline; the application of the same course of study, and instruction in the same special subjects that will confront them when they begin their actual work. They can have, and should have fullest opportunity to observe all grades of work, and all conditions of organization offered in their particular city; hence, the greater practical value of observation and practice in connection with the city training school. Of course, this observation and practice can not always be carried on under criticism, but the conditions are always real, and the observations can not be valueless.

Practice, which at first should be done under direct observation and criticism, can soon come to be accomplished by using the members of the training school as substitutes, giving the superintendent of schools an opportunity to observe the work of his prospective teachers, and enabling him to form an opinion on something more than mere recommendations when it comes to the matter of selection.

Danger from the "breeding in process" is minimized by careful selection, by providing for visiting days each year, whereby teachers visit other cities and other systems, and observe other methods of instruction and discipline and organization. Each teacher so visiting should be required to make a written report of her visits to the teachers of her own particular school when she would have returned. Furthermore, in every city there are sufficient foreign teachers to infuse new blood, and to impart new ideas to the locally trained teachers.

The smaller number of students who make up a training school enables the instructors to give more individual attention, both in

instruction and in criticism, and smaller classes lead to greater freedom of expression and greater manifestation of individuality on the part of the members.

A strong city training school is a wonderful impetus to the whole city system. It is not only a model school to be observed by the teachers of the city, but the fact that they, themselves, are to be observed leads to better methods of discipline and instruction, and to more thorough organization. From the training school should emanate ideas and ideals which serve as an uplift to every department of the work.

It may be that financially, the city training school does not pay, but professionally, it pays largely. It enables superintendents to raise the standard of the teaching force without arousing the local opposition which might result from the introduction of too many foreign teachers.

Altogether it seems to me that both the training class and the training school perform functions entirely without the province of the normal school. Neither can be dispensed with; both are being strengthened and improved year by year; and both will continue to offer opportunity to young people desiring to teach, and who would otherwise be deprived of the advantage of any professional training whatever.

Inspector Willis D. Graves—For seven years I have devoted a large share of my time to the interests of the training class and training schools of the State, and this fact is my excuse for taking a few moments of your time. I am pleased with the eminently fair and, I think I must consider it, complimentary attitude taken by Sup't Shear in discussing the functions of the training classes and training schools.

The more I have seen of the work of these classes and schools, of the increased efficiency and growth of that work, of what it is doing for the common schools of the State, the more convinced I am of its value and importance.

The question of increasing the requirements of admission to training classes is a question that has been considered at length by those who have been directly connected with this work. We

require today a Regents preliminary certificate and at least 14 higher counts for admission to a training class, provided the candidate enters on Regents credentials. In fact, while this is the minimum requirement, it is safe to say that the great mass of those now entering training classes present considerably more than this minimum requirement. I recall one training class for the past year that has registered 17 high school graduates, all holding Regents academic diplomas, out of a total registration of 20 members, and it is not an uncommon thing today to find a majority of the students in a training class full high school graduates. I think an important function of the training class has not been mentioned, and that is the fact that these classes in every community where they are established are spreading through that community the idea that the training of teachers is an important matter; that what to do in a schoolroom is perhaps as much of a trade to be learned as are some other trades. As training class members go to their homes, wherever a class is organized, they are from day to day bringing home live school questions.

During the last year there have been employed in this State 8400 graduates of training classes and training schools, an increase of over 1100 in a single year. Last year the increase, I think, was about 1200 in a single year; in other words, the increase of teachers who are graduates from training schools and training classes in this State, in two years, has been practically 25%.

It has been stated that the number of teachers today working in uniform certificates is much less than ever before. It is also true that the number of such answer papers looked over at this department is very much less than ever before and growing less every year. There are now very few third grade teachers in this State. One school commissioner told me that he had only three in his commissioner district, and a number of commissioners have told me that the majority of the teachers in the schools of their districts are graduates of training classes.

Looking at the work which these training class teachers are doing for the State, at the necessity of this work, at its growth, at the commendation which the work receives, we must feel that

training classes have still an important mission to perform. I do not think it is feasible to increase the requirements for admission to these classes just yet. We have all noted the fact that within the last 10 years young ladies, more particularly, have been called on to fill positions which were not previously filled by such persons. I know of one country village where today 11 young ladies are holding clerical positions of various kinds. Ten years ago in this village not one was to be found. The fact is, we are having difficulty in some parts of the State in getting teachers enough to supply the common schools, and, if we raise the requirements much higher than they are now, the result will be that we shall discourage entrance to training classes to an extent, perhaps, which will leave many schools without teachers, unless such teachers are supplied by temporary permits. If you will look over the statistics of the Department of Public Instruction for the last two or three years, you will find that there have been too many of these temporary licenses issued. While we should like to make the requirements of teachers as high as possible, while no one, I believe, would be more glad to see these requirements raised than I, still I can not feel that the time has yet arrived when this should be done.

There is no rivalry between the normal schools of this State and the training schools, unless it be a generous rivalry. I am sure we never say to a student, "You can get in a training class what you can get in a normal school"; that would be absurd. With something like 8000 graduates from normal schools employed in this State and an equal number from the training schools and training classes, it is not time to call a halt or to make any experiments that might prove injurious.

THE LACK OF CONNECTION BETWEEN THE WORK OF THE GRAMMAR AND HIGH SCHOOL

BY PRIN. C. H. WOOLSEY, POUGHKEEPSIE HIGH SCHOOL

It will be well, perhaps, to state at the outset that it is not the aim of this paper to find fault with any individual or class of individuals, or to affect an air of superiority in regard to the shortcomings of any one. We sincerely wish to find out what

causes the gap between the work of the grammar school and the high school and to devise remedies that will counteract an unsatisfactory state of affairs that exists in the majority of the high schools of the country. The trouble has been and still is a serious one. In some places it is growing worse or shows no signs of improvement, and in others a slight change for the better may be detected. In many instances, bridging the gap is the most serious problem the high school is called on to solve. In a few schools, less than half a dozen out of more than 70, a solution, or what passes for such, seems to have been effected. Perhaps these few may furnish the leaven that will leaven the whole mass.

It is not fair that so much of the effort and energy of the high school should be expended in correcting deficiencies for which it is only partially responsible. I say *partially responsible* because the high school is not free from blame, and more blame may attach to it than the high school is willing to admit. Now that both parties have been remiss, the difficulty should be obviated by advances from the one and by actual help from the other. What these concessions and advances should be, will be discussed later.

We know that there are many schools in which a break between the work of the last grammar year and the first high school year exists in some form or another. Ninety-seven high school principals in the larger cities of 18 northern states from Massachusetts to California received a circular letter bearing on this point. In the replies, except two, were statements, some of them very emphatic, that a break existed.

The questions submitted were as follows:

- 1 Do you find any break between the work of the last year of the grammar school and the first year of the high school?
- 2 In what way does this break in the work show itself?
- 3 What, in your opinion, causes the break?
- 4 What means are you using, or would you use, to obviate the difficulty?

In answer to the first question, Is there a break? two principals, one from Indiana and one from Ohio, replied there was

none; one principal from Pennsylvania said there was no natural break but an artificial one; all the others, more than 70 in number, said there was a break and expressed themselves, some mildly and others with decided emphasis.

To the second question, How does the break show itself? the answers were various, but the general tenor was the failure to do good work in the first year of the high school. A few quotations will give specific ideas of the ways the break in the work appeared to different observers. To quote: "In the difficulties the scholars find in mastering the work of the first year"; "inability to do independent work"; "inability to fall in at first with high school ways"; "inability to grasp problems of high school course"; "in the failure to adjust themselves to new conditions, new studies, new environment"; "in poorly prepared work in the first year"; "in the inability to prepare work at home without assistance"; "lack of self-control and power to work unaided"; "in apparent helplessness and lack of initiative"; "in the lack of thought power and the ability to express thought." And some of the quotations differently worded might pass as causes of the break instead of its manifestations.

Some of these phenomena are due to a lack of such training as will give the pupil power to apply his knowledge to a solution of the problems that confront him. For this the grammar school alone is responsible, and the high school can offer nothing but suggestions. Those phenomena that arise from changed conditions, studies and environment, would readily disappear with a more harmonious relation and a better acquaintance between the grammar school and the high school.

To the third and fourth questions the answers were particularly full. The replies to the third question, "What causes the break?" were in a general way, lack of coordination of the work, too much departmental work in the high school, pupils do not know how to study, they are immature, dazed by changed conditions in regard to studies, methods and conditions. Many principals say essentially that the cause of the break is due to the fact that the pupil with the resources he has can not do his work,

many giving reasons why his resources are few and his initiative feeble. He gets "too much assistance in the grades" which is evidenced by the fact that he can not work without such assistance when he comes to the high school. One principal says a cause of the break is the change from no home study in the grades to two or three hours when in the high school. This point is an important one.

It should not be a difficult matter to conduct the work in the last year of the grades so that the pupil would need to do school work at home. A change so abrupt as this would task the capabilities of good pupils, let alone those of average ability and capacity.

Another principal says the trouble is caused by "a change from an intimate acquaintance with one teacher in all subjects to four teachers in four subjects." This personal relation between the teacher and pupil at this time is the strongest factor in a pupil's success. We all know that the teachers who are regarded as friends by their pupils get the most and best work from them. Of course this can be carried so far that it runs into the objection made by one principal, "that the pupils were mothered by their teachers." The "sympathetic and familiar conditions of the grammar school" should not be absent merely because the pupil has entered the high school. Departmental work can be unbending and yet include in it a little of the milk of human sympathy.

The change from two sessions to one seems to many principals a source of poor work. They think this change "leads pupils to think they have more time than they know what to do with," and they "do not know how to take the proper advantage of their liberty." If public opinion demands one session in the high school, then it should take pains to see that the pupils give the proper amount of time at home for preparing school work. Unless the school is supported by the public in this respect, there should be no complaint about poor work. I fail to see how a one session school can cover the work demanded by the colleges without the support of an elevated public opinion. In a one session school

the burden of the responsibility for good work is more on the public than on the school.

The lack of pressure in the grammar grades, too much teaching and supervision, not enough work, too much memory work, are also given as causes of the break. These, I think, operate in an indirect way as they tend to destroy the pupil's desire to become self-reliant and to do independent work.

Some of the causes mentioned thus far for the break seem to be more or less mechanical and not caused by a failure to work along pedagogic lines. That the pupil is not able to work independently shows a defect in training that has no relation, except in a remote way, to mechanical difficulties. The reasons given for the pupil's lack of training are that lower grade language work is not practical, as it does not develop power of expression, that his instruction does not create the power to think independently, that he can concentrate his mind for a short time only. The quality of the work done in many instances in the first year warrants the belief that this is true. Pupils show there the deficiencies just enumerated. If there were a striving for a deeper content, and if the child were led to expend his energies on knowing more thoroughly a few subjects and their intimate relations to the more advanced work in the same lines, these failings would be obviated in a marked degree. So far as my experience goes, most of the failures of the first year are traceable to these deficiencies more than to any other causes.

One principal gave as the reason for the break the radical difference in the quality of the instructors, as the high school faculties are recruited from higher institutions of learning, and very often there is a lack of sympathy, and a lack of appreciation of the ability of the child. This is an important point and is discussed fully later. Another principal says, but with how much feeling I am unable to state, that the cause of the break is the change in the hour for luncheon. A principal in Pennsylvania says there are too many specialists in the high school who are teaching *their* subjects but are forgetting *the* subject, the child. Unfortunately that statement is true. This is the day of the

specialist. He is irritated and ill at ease if suddenly called on to assist in some work outside of his specialty. As with physicians so with school teachers, the one who excels in general work, that is, has the ability to do good work in several subjects, will later make the best specialist. You can get few specialists to accept this view.

Thus far I have enumerated with some comment of my own, a few of the more important causes of the break, that have been suggested by high school principals. Many more have been suggested, but it would be taxing your patience too much to recite them. Some of them appear trivial when taken individually, but when taken in the aggregate are of much importance and perhaps exercise more influence for harm than we are aware.

You will notice that these causes are not the fault of the grammar school, alone but that the high school must take a good share of them to itself; and these it is the duty of the high school to correct at once.

The replies to the fourth question "What means are you using, or would you use, to obviate the difficulty?" show that much attention has been given to the subject for a long time. Two principals said they were using no remedies for the break; more than 25 said, "join the eighth grade to the high school and put algebra and Latin in the grammar grade." Of the following suggestions, more than two principals gave some one as remedies: "Teachers from high school should see grammar school work and consult with grammar school teachers"; "pupils in the first year of the high school should recite to the same teacher in two or more subjects"; "increase the personal relations between the teacher and pupil other than those in the classroom"; "training in home study should be begun in the grammar school"; "have college graduates in the eighth grade"; "more thought work and less memory work in the grades"; "raise the standard of the work in the grammar schools"; "less working to pass examinations"; "unusually strong teachers should have first year work in the high school—that is the only solution"; "pupils should be taught how to study before entering the high school"; "not sending too young pupils

to the high school"; "frequent interviews between the principal and the pupils and parents."

Other remedies were offered by individual teachers: "Change method of instruction in the last year of the grammar school"; "make 1st year English easier"; "encourage greater use of reference books in grammar school"; "have more application in the grades"; "twice a year promotions"; "lessen the number of subjects in the grammar school and make the pupils get arithmetic, grammar, and spelling"; "send back the incapables to the grammar school."

Such and so many are the remedies suggested by men who have given the difficulty serious thought. We ought to devise some scheme from the suggestions that in time, and a short one at that, will do away with the present state of affairs.

If there were more cooperation between the teachers of the grammar school and high school, more conferences to know what the former are doing and what the latter want done, a greater sympathy and a real helpfulness on the part of the high school, a keener appreciation of the needs of the pupils who come to the high school for the first time, a personal interest in their troubles and perplexities— if we could have those evidences of a sincere desire to help, then the causes of the break would not show themselves, and there would be no need for the remedies suggested. This to my mind is the key to the whole situation so far as the training of the pupil is concerned.

One cause of the break, which to my mind is a prolific one, has not been mentioned. There is a strong feeling of caste among high school teachers in regard to their relations with their fellow-workers in the grades and an equally strong feeling of resentment on the part of the grade teachers toward any suggestion from the high school. This is most unfortunate. Each has much to learn from the other, the grade teacher may get much that will be of use to her from the broader view of the college graduate, and the high school teacher will find that only with the utmost effort can she get the intimate knowledge the grade teacher has of her children and the strong hold on their

affections. Much of the truest and best teaching is done below the high school, and it is the duty of the high school to know how the grade teacher does her work. All the work of teaching is entitled to the greatest honor, and one part is no more honorable than another. The one who is doing the more elementary work will be found nearer the first principles than the one working on the higher plane. The high school teacher must look backward as well as forward in order to comprehend the educational horizon that is within her view. The work of the two classes of teachers should supplement each other. When this hearty cooperation between the high school and grammar school takes place, then we shall expect to see the sides of this gap drawing together. The beginning must be made by the high school. From the nature of things the grammar school can not be expected to take the lead. If the high school would show a greater disposition to help and less to find fault, the response on the part of the grammar school to suggestions would produce more satisfactory results. This feeling of caste must be rooted out, and this must be done first or failure only can result from any efforts to close the gap.

So much then for the teachers of both schools and their relations with their pupils and with each other. The subjects studied in the last year of the grades would help the pupil in his work in the high school. Several changes, perhaps radical in a sense, are submitted.

Much has been said about putting the eighth grade into the high school. If by that is meant transferring the present work of the eighth grade, without any change in the subjects, much good would not result. The studies of the high school should be begun in the last grammar grade, algebra, English literature, a foreign language and elementary science. By English literature I do not mean English as taught at present in the first year of the high school, nor the present requirements of 1st year English, but a study of literature for the sake of literature, not for the purpose of doing a lot of technical analysis that most of the pupils are unfitted to do, and are but slightly benefited if they

succeed in doing, but which gets them into such a state of mind that all literature is distasteful. There is no reason why the eighth grade pupil can not be taught to like many good books in our literature and to look forward with interest to the time when he shall read others like them. At present, however, to suggest to him the reading of any book is to put into his mind the title of a book he is to avoid for fear he must take up that book in the same way he studies his English in school.

Several years ago, President Eliot gave the freshman class an address which contained much good advice, given in a business-like way. One statement which I shall never forget, and which, in the present state of the teaching of 1st year English, I am not likely to forget, was in substance this: "You young men have many opportunities before you. If you improve them, you will attain to positions of importance and honor. No matter how distinguished a part you may take in the affairs of the world, your greatest pleasures will come in your leisure hours from the best there is in English literature. I pray you, then, to cultivate a taste for good reading." Any teaching of English that does not have for its main purpose the appreciation of good literature is absolutely false. There are many good books within the understanding of the eighth grade, which if properly presented, will create a taste for good reading.

The proper place to begin algebra is the eighth grade. What foreign language should be first taught in this grade may be a matter for discussion. A majority of the principals suggested beginning Latin. My experience is that Latin should be studied by only the best pupils in the eighth grade. Also that most of the pupils who fail in Latin, when put in German, fail in that subject too. To complete the experiment, I hope to put some of the pupils who have failed in Latin and German into French. I expect the number of failures to be the smallest of any in the foreign languages. Professor Hanus of Harvard insists that with French in the grades for a year or two, Latin is acquired with a great saving of time and labor. This course is now followed in many of the German schools and one or two schools in this country with satisfactory results. From my own experience

with Latin and German in the first year of the high school, and before, except with the best pupils, I am convinced that the study of neither of them produces so satisfactory results as would the same amount of time given to French. The one difficulty for the present would be the teacher to instruct the pupils in this subject. Almost any one feels competent to teach Latin or German, but those who would be willing to give proper instruction in French in the grades are few. But the demand will create the supply.

To the child there seems to be so much about Latin that is intangible and incomprehensible that he dreads to begin the subject. His dread is not lessened when he finds that he has nothing within his understanding on which he may hang what he has learned. Let him study a language that he can apply to the things he sees and hears in daily life. Using his newly acquired knowledge will be a pleasure to him and an incentive to increase his power in its further application. His knowledge of French will be of advantage when he comes to take up Latin, the step from French to Latin is a short one, though in point of derivation a backward one. The difficulties of beginning Latin as the first foreign language have already been mentioned. Beginning German as the first foreign language, in addition to the declensions and the involved order of words of the Latin, has the further disadvantages of a new type and script. French has the advantage over Latin and German that it does not have their declensions and involved order of words, though its pronunciation is, perhaps, slightly more difficult than that of the German. For these reasons, it is suggested that French is the best language to begin in the grades.

In the last year of the grammar school or the first year of the high school there should be some elementary science. Last year we had a number of first year pupils who did poor work in everything except algebra. The problem was what to give them that would interest them. History and graphical geometry were suggested, only to be cast aside. What they wanted was neither hand work nor head work exclusively, but a combination of the two. Elementary science was suggested. The suggestion was

developed, and a plan of work elaborated. The result was five weeks each of the elementary work in chemistry, physics, zoology and botany in the order mentioned. A change for the better was immediately noticeable. The greatest interest was aroused, and the pupils willingly did this work, and before the wave of interest subsided, it spread to other work of the pupils. There was a great improvement in all work. This year these pupils had the regular work in zoology and botany. The standing was higher than that of the pupils who had greater natural ability but had not had the elementary science work. This elementary science work is not above the understanding of the average eighth grade child, and the subject should be taught there.

This, then, the suggested scheme of work for the eighth grade, algebra, English literature, French, and elementary science. Algebra, and perhaps the English literature, should appear on the program each day. The French could, if necessary, alternate with the elementary science. This program would necessitate home study for the pupil, which many principals maintain should begin in the grades. If taught the right subjects in the right way, that is a few subjects thoroughly, the average pupil would be ready for the work here suggested for the eighth grade.

While speaking of home study for the grammar pupil, it might be well to advert to his attitude in general toward his school work. This attitude is not a wholesome one. He has little or no sense of responsibility toward his school work. This state of mind is very noticeable in the first year of the high school and proves a great bar to satisfactory progress. When there is this sense of responsibility, a feeling that school work is worth doing and doing well, the pupil is on the high road to good work in school and, when out of school, to giving his employer something like an equivalent in work for his wages. A whole train of bad habits, shirking, negligence, shiftlessness, laziness, all the stock in trade of the corner loafer, will disappear as soon as a sense of responsibility toward his work comes into the pupil's possession.

Many of the principals said that the employment of college graduates in the eighth grade would tend to close the gap between the grammar school and the high school. A college graduate with the same ability to teach as a good grade teacher would do the better work without doubt. But the difficulty of getting college graduates, except those possessing the true spirit of the teacher, is apparent to every one. The small salary, the dislike for elementary work, the feeling of a loss of dignity are some of the difficulties to be met. The most successful teachers of first year work, in my experience, are those who have had previous experience in the grades before coming to the high school. These teachers had a clearer idea of the needs of the pupils, and the pupils made greater progress with them than with teachers who had not had such experience. The raw college graduate is more apt to do poor work in the grades and the first year of the high school, because of his lack of experience in teaching, lack of knowledge of the needs of children, his ignorance of the application of the principles of educational theory. He can not lean on the ability of the pupils in the upper classes of the high school, but must get down to elementary principles and create in his pupils the ability to do good work. I should like to say a word to the unskilled college graduate who expects to make teaching his life work. If he wishes to know thoroughly the foundation principles of his business, let him teach awhile in the grades. Only with the greatest effort will he do equally good work without this experience.

We might get a valuable hint from the colleges that will enable us to help the pupils overcome the difficulties they meet on their entrance to the high school. In some of the colleges the freshmen are divided into squads, and each squad has some instructor for an adviser to whom the student may go, or rather is expected to go, for advice and counsel in regard to any part of his school work or any other subject that holds his interest. This plan has been in vogue at Harvard for several years and is a pronounced success. If freshmen at the colleges are in need of advisers, how much more do the pupils need them on entering the high school!

Not all teachers in the high school would make satisfactory advisers. This work should be done by the teachers who have the first year work. The pupils would readily respond to being met by their teachers and treated as we treat men and women and not always as though they were children, who would never be anything else and were intended always to be children. Pupils now go unasked with their troubles to those teachers who possess their confidence. It is the teacher's first and greatest duty to get the complete confidence of his pupils. Those who do not get it are failures.

A Massachusetts principal meets the difficulty this way. He asks the grammar school teacher to give him a statement on a printed form in regard to the pupil's home conditions, general health, ability in expression, the subjects he likes best and dislikes most and whether he is prone to work or shirk. He says that with this information he can counteract to a great extent the troubles a pupil has when he leaves the grades for the high school.

This paper, already too long, must be brought to a close, though many topics of the greatest interest go untouched. A summary of what has been said may be reduced to this. The evils arising from the transition from the grammar school to the high school may be obviated to a great extent, if not wholly eradicated, by changing the subjects of the eighth grade to bring them into close touch with the work of the high school, and, on the part of the high school teachers, by an active interest, by a hearty co-operation, by a real friendship with their pupils and a deep sympathy for them in their difficulties. These are absolutely essential.

THE REVISION OF THE CURRICULUM FROM THE STAND- POINT OF THE ELEMENTARY SCHOOLS

BY SUP'T THOMAS R. KNEIL, SARATOGA SPRINGS

Just a word in explanation of my presence here this afternoon. About 10 days ago I received a letter from Dr Taylor asking me to open this discussion. I notified him that I would if he would provide me with material. A day or two after that I came to

Albany and had a talk with Dr Taylor. He evidently had forgotten about it and confided to me that he had been raking the State with a fine-toothed comb to get people to take part in this discussion. I am the latest production of the fine-tooth comb.

The question of the revision of the curriculum in elementary schools is one which seems to require a great deal of thoughtful discussion. The more I look into it, the more I am satisfied that the subject can not be disposed of in any 15 minute discussion. There are so many things that you want to do, so many things which look well in theory but are utterly impracticable when you reduce them to practice, and we see that the problem is by no means simple. During the last two or three days I have thought much over this problem. I have said over and over again to myself the words of Milton: "Whichever way I fly is hell; myself am hell." I can not reconcile the theory to practice. I am inclined to believe that we are going at this problem from the wrong end; we are studying it from the standpoint of the college. The college wants us to do this and thus and so. The college demands that our boys and girls come to it for a course which it wishes them to pursue. The college demands that our boys and girls shall come to it for the course which it has, and so we are asked to get our pupils to go to college earlier and to get them better prepared for the work of the college. I am inclined to resent the demands of the colleges on the secondary and elementary schools. I am inclined to resent the demand that our school course shall be so modified and so changed that a very small percentage of the pupils who are coming up through our common schools shall be benefited thereby. If there is anything that has been drilled into me from the time I was knee-high, it has been this thing, that the common schools are for the good of the commonwealth; that the common schools are not at all for the benefit of a class; that the common weal is the thing that is at the very foundation of our common school system. We ought to approach this problem, not from the demands of the colleges and professional schools, but from the demands of the great and general public.

What can our common schools do for the benefit of the mass of humanity that go away from them even before they have completed the course of study in our common and elementary schools? Some say we ought to solve this problem by making six years the course in the high schools instead of four years, which we now have. I say emphatically, no. [Applause]

I believe this, that it is possible to enrich the elementary school course; but I want to say that I do not believe it is possible without condensation. I have no sympathy with enrichment unless you condense and cut out. Enrichment without condensation is all nonsense, to my mind.

I believe in an eight or nine years course of study below the high school. I believe that the eight or nine years course of study should be made just as full as it can possibly be crammed with material which will be for the good of any individual. Enough of our pupils drift away from the common schools for the simple cause that they do not want to go to the high school; and, if you put two years in the elementary schools curriculum, they will leave two years earlier and thus be deprived of the education they ought to have.

We waste altogether too much in teaching things which ought not to be taught to the extent to which they are taught. I believe we can save time in our elementary school work and save much time, that it is possible for us to put in what we call our elementary school course. I believe it is possible for us to effect a saving in our elementary school work. I admit we are putting into the elementary schools subjects which are now taught in the high schools exclusively; and right against this theory comes this, that in practice you can not do that unless you have the teachers and you can not have the teachers unless you have the money. Now, what are you going to do about it? You may theorize from now till doomsday, but unless you have the money, your efforts will not amount to shucks. You must have the means to do the things about which you theorize.

The last speaker said the college graduates ought to get experience in the grades. I agree to that, but heaven help the grades

where they are put; there is no power on earth that can help them. [Applause] I do not want college graduates in grade work. I have had experience of college graduates in grade work, and I say, from the bottom of my heart, I do not want any more of them. Give me the normal school graduates or the graduates of a training class, or give me one who has come up through the district school and has taught and been successful in her teaching. [Applause]

I believe we are teaching too much geography in the grades. You ask how we are going to save time in that. We can save by giving up some of the time we are devoting to geography. I also believe we can reduce the time we are devoting to arithmetic and be better off in every way, shape and manner than we are today. I have no sympathy with the metric system, not a bit of it. If I fail to get to heaven, it will be because of the unclassical English I have used in connection with the problems that are put in the Regents papers by the Regents. I believe the metric system should be relegated to the realm of professional schools, and that it is time enough to teach it when it is adopted in the State.

I want to say that I have no sympathy with five weeks' instruction in elementary science. It is a mere start. If you are going to teach it, do it.

I believe we are teaching too much English. I have no sympathy with a four years course in English and no sympathy with a 13 years course of English. If the child can not, at the end of 10 or 11 years' study of the English language, have a sufficient mastery of English for all *ordinary* purposes, and going to college is an extraordinary purpose, I say the child ought not to be required to study for two years more. We can save time right there in our English. How many among you were brought up on 13 year English? I do not believe there is a man or woman in my presence today who studied English for the length of time we are required to teach it in our schools.

Here is another point where you can save time; I believe the curriculum of the elementary school can be modified in the amount of time we are giving to history. I am, from the sole of my head to the crown of my foot, as our Celtic brother has it, an American citizen; but I believe that the time we are giving to

American history could most profitably be spent along other branches and branches too which would be preparing for the work of the high school. We have now two or three fads in our public schools, the fad of vertical penmanship, the fad of American history and the fad of English language. I want to tell you that the amount of English teaching we are doing today is a fad. Cut down your work in arithmetic, in English and in history and put into the grammar school course some of the things that are now being taught in the high school. Why is it that the grammar school and the high school do not articulate? Because you do not put enough high school work into the grammar school work. We have practically a high school course of four years because we count the ninth grade of the grammar school as one of the years of the high school; but our course of study is so arranged that a pupil wishing to get a preparation for college, in three years after reaching the high school, can get it and without special difficulty.

The grammar grade is doing high school work today; the grammar grade has put into it just that for which I am pleading today, subjects which have been heretofore taught in the high school. We are experimenting; we are dropping down into grammar schools things that have been previously taught exclusively in the high school and the result is good, so good that I am very much inclined to think that we shall widen the scope of studies we are putting into the grammar school from the high school curriculum.

I believe it is plenty of time after the third year up, to teach arithmetic and numbers. We are not doing it. We should not take up the formal study of numbers till the child reaches the fourth year. We have plenty of time for it there. I believe the elementary school curriculum should be so modified as to put formal study of numbers back three years, and that it should not be taken till the beginning of the fourth year. I believe the curriculum of the elementary schools should be modified by reducing the amount of teaching we are doing in arithmetic, in geography and in English. In place of these things we can put in German, French, Latin and science. Right there is an objection. Those pupils who are in the grammar schools have not the ability to

select the course of study which is best for them. I do not know how this objection is to be met, but I believe that some time or other it is going to work out, and we are going to be able to do it.

I believe we are doing too much drawing in a certain way in our schools. If you place the emphasis on manual training, I think that drawing in our schools is all right.

William D. Lewis—Superintendent Kneil is in error in one part of his remarks. He is not the latest product of the fine-tooth comb. That came my way three or four hours ago.

Of course this is a distracting place to try to get one's thoughts together to frame a speech or even an outline. All through the first part of Superintendent Kneil's speech I was in despair, because I agreed with him so thoroughly that I saw no ground for controversy. He did, however, say something before the close of his remarks which I shall use as a text a little later on.

I think the superintendent is thoroughly right in his point of view. From my experience of seven and one half years as principal of a grammar school, followed up by experience in a high school, I agree with him thoroughly in the standpoint that he took when he said nothing should be added to the grammar course without a corresponding elimination. This sort of diminution from above is rather troublesome, not only to the grammar school but to the high school. For instance, we in the classical department of the high school are subject to the diminution on the part of our college friends, who do not even call us into consultation, but will force on us subjects which they themselves will agree are utterly unfit for our pupils. For instance, one of the best teachers in the State, in Cornell University, has told me that some of the subjects in the high school course are too hard for his sophomores. So that from the high school course alone we shall make a great mistake if we try to foist on the grammar school any of the ideas proposed without consultation with the grammar school. Right there is one of the difficulties which have arisen in the public schools. You may make your syllabus what you have a mind to, but the examination is what is going to determine the teachers; they are being measured by the examinations, the examination in arithmetic, in grammar, etc.; and the sylla-

buses have been made, so far as I can discover, very largely from the high school point of view. The grammar school people should be consulted.

Now, we come down to the real question of courses. What can we do? What shall we do for the great mass that goes away from our grammar school, the public school? Not the people who are going to college. This is a practical matter; and the superintendent asserted that we do too much geography, arithmetic, metric system etc., and I agree with him most heartily; but, when he comes to the next point and says we have too much English, there I must disagree with him most strenuously. I will agree with him that a large part of our English in some schools can be eliminated, but I do not believe that we have too much English. We have the wrong kind in our American schools. The study of grammar as it has been conducted throughout the State in response to the demands placed on it by the Regents preliminary examinations is beyond the pupils of the grammar school now. In place of the grammar we take out, let us not put in less English, but rather let us start from the earliest years of the school to develop a literary feeling in the pupil, an ability to express himself clearly. These two things are the basis of an English course from the first year in the elementary school through the college, the ability to appreciate good literature, and the ability to express well the ideas one has. These, I believe, are the two ideas we should keep constantly in view. These things should grow into the pupil's life before he knows it and he should know them intuitively. He should have the stories of Greece and Rome, the stories of classic mythology, the stories of these people, so thoroughly ingrained into his being that, when he strikes allusions to them, he may have the background and he will not have to look them up. Superintendent Kneil made an appeal to the audience here, saying that the majority had not been brought up on a 13 year course of English. We do not know how much we have missed by not being brought up on 13 years of English, always provided it had been the right kind, it had been literature in which we were steeped, literature which like a nectar gives out an aptitude for more, gives the ordinary, simple relations of

unidiomatic English. These get into the pupil's possession and when of the right kind go with him through the high school.

I do not know that anybody now thinks advanced grammar is of any practical value in teaching us to speak; this idea is pretty well exploded. Let the advanced grammar and such things go and give us plain, practical English, and lots of it, for the 13 years, and, if the pupil goes to college for four more years, based on that principle of appreciation of literature and ability to express himself, he will succeed. I do not care to take up the question of the extent that we should go into the grammar school from the high school. I should be inclined to question that most earnestly. I think Superintendent Kneil stands in the position of nearly all the gentlemen here, and I shall leave it to him to answer.

Prof. Will S. Monroe—I agree entirely with Superintendent Kneil as to the curtailment of the elementary school course, with special reference to arithmetic, drawing and geography, and, I should also add, music. There can be no doubt, as Superintendent Kneil has pointed out, that the formal study of arithmetic is manifestly ill suited to the mental capacity of children in the first, second and third grades. The educational value of any subject must be tested by the interest aroused, the utility of the study and the capability of the child to pursue that particular study. Measured by all these standards, arithmetic will be found to be wanting.

With reference to geography, great improvement has been made during the past dozen years with special reference to the scientific aspects of the study, but the study of structural geography as now pursued in our elementary schools calls for an amount of reasoning not possessed by children in these grades. Much of the subject-matter now taught in grades below the eighth could profitably be deferred till the high school, and there might be substituted for structural geography more work in commercial geography. Children have more direct interests in the human side of geography, and this should be utilized in the primary grades.

Superintendent Kneil is unquestionably right in criticizing the emphasis placed on the artistic side of drawing work in the lower

grades, and insisting that the study should be more directly correlated with manual training and other forms of expression now in the school course. Young children possess very slight artistic interests, and to emphasize this phase of the study as we now do is productive of more or less waste.

Music as now taught in our schools seems to me largely a waste of time. Measured at least by results, little can be said for the study of this subject in the elementary grades during the past half century. The capacity to enjoy good music is very uncommon. This is evidenced by the low taste indicated by the ballets, musical comedies and other cheap musical performances very popular in our own day.

The whole problem of the educational value of the elementary school course, as this discussion has plainly indicated, is in great need of new attention, but the revision should be in the hands of a body of competent men. The splendid reorganization of the Department of Education of the State of New York makes possible such a reconsideration of educational values. An investigation somewhat after the manner of the committee of ten or of the Superior Educational Council of France would throw a broad flood of light on the revision of the curriculum in the elementary school. There is time to do all that needs to be done below the high school, but we must know where we may lop off what already occupies so much of the time of the children.

Regent Beach—It has occurred to me during the afternoon that you might notice in the little pamphlet program that the University has a college council and an academic council, but that there is no elementary council. I suggest that something of this kind be planned to cover work of the common schools, and that application be made to Commissioner Draper for it. It seems very proper that this division should be represented by a body of men whose names may appear among the University councils to take into consideration the subjects that have been discussed here, particularly the question of elementary instruction.

If there is nothing further, the meeting of this division is adjourned.

Tuesday evening, June 28

QUALIFICATIONS FOR TEACHING NOT DETERMINED BY
EXAMINATIONS

BY PRES. WILLIAM J. MILNE, NEW YORK STATE NORMAL COLLEGE

I fancy that no more important subject connected with education can come to your attention than that of the proper method of selecting teachers. It is occupying the thought of boards of education, superintendents of schools, mothers and fathers throughout the length and breadth of our land, and it certainly should receive some attention from such a body of men and women as this.

Teachers have very intimate relations with the young. They have to teach, they have to guide, they have to elevate, if possible, to inspire, and to give their pupils that insight into truth which shall lead them into higher fields of endeavor and of purpose. So it must be apparent that there is nothing connected with education of so much importance as the selection of proper teachers.

Our attention is occupied a great deal these days with courses of study. That is entirely proper, for I am sure they can be improved very decidedly. Much thought is being given to child study. That is well, also; the child should be studied very carefully and diligently, and, if possible, laws should be formulated which would guide in the development of all the child's powers and in proper methods of instruction. But there are other duties that the teacher is employed to perform, and some things that he does, even when he is not employed to do them.

It is unnecessary to assert that he must have knowledge, since he is to instruct his pupils in things they do not know. He should understand thoroughly the subject-matter he is to teach, and that brings up the question of profitable examinations. That subject was ably treated this afternoon by Dean Russell, of New York city. I have nothing special to add, for I concur generally in what he said.

Examinations are proper. I favor them. I have always favored them. But I prefer some kinds of examinations to others. We have been told by people opposed to examinations that they

are destructive of the nerve tissues of the young. I can't say as to that, physicians can tell you whether or not it is true. I have been told that they send persons into insane asylums. Possibly they do. I am not prepared to deny it, though I don't believe it. But all this sort of talk has had its effect, doubtless, and so in many schools final examinations have been done away with, and now they give brief examinations every little while to avoid over-taxing the nervous system. I do not disapprove of these little ones—preliminary examinations, you might call them; but I do believe that the grand, old-fashioned, culminating examination which took place at the end of the period of study covering 10 or 20 weeks was one of the finest disciplines the pupils ever received.

When one reads Virgil a few lines at a time, one does not know anything about Virgil—one does not obtain the faintest glimpse of Latin literature, certainly not of Latin poetry. Those who have ability to appreciate Latin literature must have read it many times and in large segments. The little bits we get one by one do not amount to anything. It is only when we can take them in grand wholes that we get power and profit out of our work. That was secured by the old-fashioned examinations.

Now, teachers must be examined. They must be certified as competent in scholarship by the schools where teachers are prepared for service. But I have a notion that the teacher should have a different sort of examination from the one which is commonly given. He should not be examined on trifling matters, and given tests in arithmetic, etc., such as children might be required to take; he should rather be given a broader, more comprehensive examination, showing the grasp he has of the principles which it may be his duty to develop and impress.

But, even after the teacher has mastered the subjects he is to teach, there is still a large amount more for the teacher to acquire. He should know the laws of mental development; he should know the principles on which education is based; he should be able to construct a system of education which shall be based on the proper laws of mental development and the truth which is to be employed

to develop the mind. In other words, he should understand proper methods of teaching. That is one of the most important matters that can be considered—the proper methods of teaching. A great many people do not pay much heed to it.

A gentleman who is in this audience tonight once said to me that he was troubled by having a lot of men associated with him who had no sort of interest in the manner of presenting a subject, but only in the subject itself. The teacher, however, should be capable of presenting the subject attractively. He is endeavoring to develop the mind of the child, and must therefore adapt that with which he is working, so that it may suit the student's intellectual capacity.

Methods of teaching are of eminent consequence, as will be seen when we consider what is the value of the subjects we study in school and in college. The greater part of whatever we study in high school, college or university (though perhaps this is not quite so true in the university), should be studied simply for developing our intellectual powers, not for the knowledge of the subject itself. Take for instance the study of astronomy. Knowledge of this subject will give us pleasure, as does all knowledge, and it will have a measure of profit as well; but the chief value of the subject to the average student is to develop intellectual power. Now, if the subject is not presented in the proper way, most of the profit and intellectual development will have been lost.

Memorizing demonstrations of astronomic science is of no value, but an intelligent mastery of the proofs develops power of mind that can be utilized in all thinking. When it is remembered that most of the knowledge gained in the schools is left behind at the school door, it must be evident that the method of presentation is of immense consequence. Knowledge has value, and every sort of knowledge is of consequence to some person or other, but we are all required to pursue some subjects in substantially the same way, whether the knowledge is of consequence to us or not. A teacher should be trained to be scholarly and to be thoroughly philosophical in his method of presenting truth to his class; and, in view of the fact that so much depends

on the proper presentation of truth, a rigid examination on that subject should be given.

He should know also as much as can be known regarding the human mind and the laws of its development. It isn't necessary that he should be able to discuss the abstruse and recondite problems that have occupied metaphysicians during the centuries past, but he should understand the mind in its functions and its operations and he should have that sort of knowledge that can be utilized in framing a proper science of education, and a wise mode of managing the young.

All of those qualifications can be determined by proper tests; but there are some qualities in a teacher that can not be discovered by any examination whatever, and these are of as much consequence, or more than scholarship or knowledge of method even. For instance, the power to inspire the young to lead them to desire investigation because of their interest in a subject is something which can not be determined by any set of questions.

Enthusiasm can be aroused by some people and not by others; but examinations, however skilfully prepared, can not determine who is gifted in this way and who is not. The correct methods of presentation will aid in arousing enthusiasm and in inspiring pupils to work, but the personal qualities of a teacher have much to do with these results.

Then again, a man has to be more than a student in the schools. His life work may not be measured by his ability to meet the requirements of his preceptor. He is to occupy his place in the world and to solve problems that confront people in the world's work. Problems of religion, of politics, of business must be settled, plans must be formed, and an income must be secured. The student who has been well trained to rely on his judgment and has had a thorough course in logical method will attack the problems of life with ease, with zest, and with intelligence. But he should have more than that sort of ability. He should have what I would term culture, and his teacher should be capable of developing in his students those qualities of mind which will result in culture.

By culture, I mean that completing, rounding out, and perfecting of the soul of an intellectual being which will give grace and attractiveness to all his thought and intellectual endeavor. It isn't enough that we have vigor of mind, we should also have grace of spirit. It isn't enough that we can attack and solve the difficult problems that may arise in life, we should be able to solve the problems in a gracious and attractive way, and it is in this way that culture enhances the value of our intellectual endeavors and gives us a standing in the world that can not be obtained without it. Men who have an appreciation and a regard for the choicer and sweeter things of life take higher rank among their fellows than those who are devoid of such attainments.

Some people are inclined to regard culture as a sort of veneer of our intellectual talents and prefer the sturdy strength of vigorous mental effort to what they regard as the sham and adornment of culture. Their watchword is, get truth, at whatever cost. They are unmindful of the fact that truth is acceptable to the world only when it is presented in an attractive way, and it is this culture, this refinement of life that gives us the power to influence mankind through the truths that we may wish to present.

I believe that we should get pleasure out of life in every way that God intended we should get it. We ought to be able to see beauty in the sunsets, to realize in our own natures the artistic value of paintings and statuary. We should be capable of receiving impressions from the works of the Creator as we meet them in the forest, in streams, in waterfalls, and if we do not get these esthetic pleasures, we are deficient in our nature or in our education. There are men who look on the majestic cataract of Niagara as a superb water power, there are some who look on the Yosemite valley simply as a deep gorge, and the only impressions they carry away are those that can be expressed in the simplest terms in our language. The soul has not been stirred. Such people lack culture, but no examination can discover the fact. Anyone who guides the young should be able to bring to their

attention those subjects that awaken emotions of beauty, of grandeur and of power. He should himself enjoy the beauty of the flowers, the songs in the forest, the music of the poets, and the stirring, glowing eloquence of the orator.

There are, of course, other kinds of culture, other sources of beauty. The gardener tends the flowers, waters them and watches them till they have taken hold of his affections. The botanist would tear those flowers to pieces to study their structure and the peculiar arrangement of their parts. He sees a new, a different beauty and is thereby elevated in his nature; but at any rate, we must seek for those things in a teacher which will contribute to the complete development of the human soul. Do you think that culture can be determined by examination? The terms of appreciation may fall glibly from the tongue and the candidates for positions as instructors may tell of "the stars the forget-me-nots of the angels" without having any emotion in the soul.

Again, the power to inspire the highest ideals of morals and religion should be required of a teacher. Not that he is to preach to his students, nor that he is to seize on every incident that may give opportunity for inculcating some moral or religious idea, but that he should possess in himself those qualities that shall exalt and uplift the young. A man can be examined in ethics, he may be tested in regard to the truths of religion, and his examinations may be entirely satisfactory, but yet he may be totally devoid of those qualities which mark a righteous man, or an upright man, or an honorable man. It doesn't prove that a man is going on a journey because he is able to explain the workings of a locomotive, nor is he religious because he can defend the doctrines of the church. Morality and religion should be taught dogmatically, if you like, in the schools and in the churches. I believe in that, but it is impossible to test a man's moral worth by any sort of examination. There is even so wide a separation between theories of conduct and what a man practises in life that it is futile to attempt to discover his moral worth by any sort of examination.

But I will not expand these thoughts further. It must be plain that some of the most important elements of successful teaching

can not be discovered except by personal acquaintance with the teacher. Some men think that a gentleman without great scholarship is to be preferred as a teacher of youth to one who has profound learning but who is a boor. I think I agree with them. Do you wonder then that parents, not merely sentimental mothers, or perhaps what are better known as "silly mothers," as we are apt to think of them, but sensible fathers, men who are accustomed to look on the serious side of life, even hesitate and are sad because they must intrust their children to the care and the influence and the supervision of teachers without high ideals and without conspicuous marks of culture?

Private schools will always flourish because it is believed that the teachers are selected for their culture and their character as well as for their intellectual power. If people were able to provide just the sort of teachers for their children that they would like, there would be many more private schools than there are now.

I am not able to give an absolute solution for this difficulty. I am simply stating the fact that there is a tremendous difficulty, and a serious problem that requires solution. I may suggest, however, that, when the time comes that higher salaries are offered to teachers, when the tenure of office is permanent for those who are worthy, a better class of people will be led to enter on the work of instructing the young than we have at the present day. Meager salaries compel teachers to live in conditions that haven't the most elevating tendency, whereas a larger income would give them the opportunity to know the world at its best and to receive impressions that are likely to uplift.

I suggest also that higher scholarship should be demanded. The teacher who knows but little more than his students can not be a source of inspiration to them. One who has never read anything that can properly be called literature, can not be expected to lead the youth under his care to an appreciation of the work of our grandest and best authors. Higher scholarship, more liberal culture will tend to produce a better class of teachers; and it is hoped that the time is not far distant when the qualifications for

teaching will be largely increased. The rewards of life have much to do with inducing people to undertake various kinds of work.

THE TRUE EXPANSION OF THE EMPIRE STATE

BY REGENT CHARLES A. GARDINER

Mr Vice Chancellor, Ladies and Gentlemen:

This is an auspicious occasion. This is a unified Convocation. For the first time in our history it represents the whole State. After fifty years of civic rivalry and patriotic devotion to the public good, all departments gather here tonight to exchange friendly greetings and to pledge supreme allegiance to the public education of the Empire State. I reverently follow the example of Governor Clinton when founding this university. I beseech a beneficent Providence to raise our deliberations to a lofty plane of enlightened and patriotic citizenship.

Representing as we do, all the people, what can be more worthy of this Convocation, or more in harmony with its spirit and traditions, than to inquire tonight how we can best promote the common good? In the judgment of many it will not be by expending \$100,000,000 for enlarged canals, nor \$50,000,000 for good roads, nor other sums for the economic development of the State, all of which are deserving but not transcendent interests; but by using the omnipotent machinery of government to uplift the intellectual and moral life of the 8,000,000 citizens of this imperial commonwealth.

In the Constitution of 1894 a free common school education was first guaranteed to every citizen. We have never guaranteed any other. The constitutional standard of our public intelligence is therefore the common school. I maintain the State has plenary power to raise that standard. I maintain it is its duty to do so. I maintain it should do so now. I maintain finally that the way to raise it is to guarantee a free high school education to every citizen within our borders.

On a memorable occasion Abraham Lincoln thus advised his hearers: "If we could first know where we are and whither we are tending, we could better judge what to do and how to do it."

So to-night, if we could first know where we are in the educational polity of the State—our powers and duties, and whither we are tending—we could better judge what to do and how to do it.

I. First, therefore, I inquire what is the power of New York State to educate its people?

I concede that the United States can educate every citizen of this State. As a nation, it unquestionably has national police power to educate its own citizens. It also has implied constitutional authority to do so. But by the 14th Amendment United States citizens are also citizens of the States wherein they reside. The United States, therefore, has both police power and constitutional authority to educate every citizen of this State, whenever it deems wise to do so. But such national power is coordinate and correlative only and not exclusive. The Federal Constitution does not prohibit New York from educating its own citizens. Therefore, under Article X all power, and hence all educational power this commonwealth ever possessed, is still reserved to the State or to the people.

Yet this does not answer my inquiry. It merely localizes the power. It is in either the State or the people. Nor does our State Constitution illumine the subject. We are forced back, therefore, to the basis of all constitutions and governments, to that underlying contract or social compact from which comes every power of the body politic.

I maintain that New York, under its social compact, possesses all sovereignties that promote the general welfare and are necessary for the common good. If education is such a sovereignty, then the State possesses it, otherwise not. A social compact, according to the Supreme Court of the United States, is a contract "by which the whole people covenants with each citizen and each citizen with the whole people, that all shall be governed by certain laws for the common good." (94 U.S. 124) In this State every citizen is both sovereign and subject. Our social compact is literally a contract between ourselves as sovereigns and ourselves as subjects. It defines all the powers and duties of this relationship.

The theory of the compact originated with Aristotle. No political organization, he taught, whether a monarchy, aristocracy or democracy, is a legitimate government, unless called into existence by the people, maintained by their consent, and employed for their good. The abuse of the theory is seen in "Le Contrat Social" of Rousseau—a state claiming every right whatever, the citizens reserving not even those of life, liberty and property—and the result, the fiendish despotism of the French Republic; while its conservative evolution is exemplified in our American commonwealths.

After flourishing in the Greek republics, the compact lay dormant for ages. Government by Divine Right ruled supreme. Then arose John Milton, and almost single handed, hurled defiance at the kings and emperors of Europe, attacked their strongholds of absolutism, demolished their fortresses of Divine Right, and once for all cleared the way for the social compact and constitutional government.

Thomas Jefferson began where Milton left off. He analyzed the powers of the compact. He defined those ceded to the State and reserved to the people. In the Virginia Declaration and subsequently in the Declaration of Independence, he explained that the powers ceded to the State are those necessary for the common good, while all others are reserved to the people.

Such is the genesis of the compact now embodied in our jurisprudence and recognized in the decisions of the Supreme Court of the United States. "Citizens," said Chief Justice Waite, "are the members of the political community to which they belong. They are the people who compose the community, and who, in their *associated capacity*, have established or submitted themselves to the dominion of a government for the promotion of their general welfare and the protection of their individual as well as their collective rights." (92 U.S. 549)

In the famous Granger cases, the Court said: "When the people of the United Colonies separated from Great Britain, they changed the form, but not the substance, of their government. They retained for the purposes of government all the powers of the British Parliament, and through their State Constitutions, or

other forms of social compact, undertook to give practical effect to such as they deemed necessary *for the common good*." (94 U.S. 124) And further the Court uses this significant language: "When one becomes a member of society, he necessarily parts with some rights or privileges which, as an individual not affected by his relations to others, he might retain. A body politic is a *social compact* by which the whole people covenants with each citizen, and each citizen with the whole people, that all shall be governed by *certain laws for the common good*." (94 U.S. 124)

By the settled construction of the courts, the word "necessary," referring to the common good, is not limited, as Mr Justice Gray explained in the Legal Tender Case, "to such measures as are *absolutely and indispensably necessary*"; but includes "all appropriate means which are *conducive or adapted* to the end to be accomplished." (110 U.S. 440) Hence, any sovereignty that is conducive or adapted to the common good, is also necessary for the common good.

And it is a corollary to the decisions, as logical as those of Euclid, that if education is necessary for the common good, then New York under the compact possesses all sovereignties over education, and has plenary and unlimited power to educate its people, to any extent and in any manner it chooses.

II. Whether education is necessary for the common good is a political question to be determined solely by the Legislature.

The people of New York act at rare intervals and in convention assembled. Their collective act we call a Constitution. It is an interpretation of the unwritten social compact by the people of their day. It is not the compact itself but written evidence thereof, just as the charter of a corporation is tangible proof of an intangible sovereign grant.

"Except in very small states," explains Professor Tucker, "where the government is administered by the people in person, the exercise of the sovereign power is confined to the establishment of the government of the State." And that is what the people of New York did on each occasion on which they assembled—they made a Constitution and thereby "established a government of the State." To this government they transferred

their sovereignties and duly distributed them among the departments they created. "In constituting a government," says the Supreme Court, "the body politic distributes its powers as it pleases, and in the quantity it pleases, and imposes what checks it pleases upon its public functionaries." (7 Pet. 546)

With certain reservations, the State assigned its political power to the Legislature. The Legislature possesses every political power, says the Court of Appeals, which "belongs by practice or usage, in England or in this country, to the legislative department, except in so far as such power has been withheld or limited by the Constitution itself." (119 N.Y. 233)

Article IX of our Constitution confers certain exclusive powers upon the University, which the people alone can curtail, protects certain educational funds, prohibits the use of public money for sectarian institutions, and guarantees free common schools to the children of the State. Subject to these limitations, the Legislature may take any political action it pleases concerning the education of the people, and its action will be conclusive and final.

Such are all educational questions involving public policy. They are political and not judicial. A court "can know nothing of public policy," said Chief Justice Chase. "It cannot examine questions as expedient or inexpedient, as politic or impolitic. Considerations of that sort must in general be addressed to the Legislature." (5 Wall. 469)

Hence, whether a State educational system should consist of common schools alone, or of high schools, colleges and universities as well; whether high schools should have a four year course, or more or less; whether their curricula should be standardized, and if so what they should contain; whether they should be for all and attendance compulsory; these and all similar questions belong to the public policy of the State, are political, and solely within the province of the Legislature to contemplate and determine.

All questions of taxation for education are also political. Whether high schools should be free, and if so how they should

be supported—solely by the State or solely by localities or jointly, and if jointly in what proportion—all these problems are political and solely for the Legislature to determine. “No one questions,” said Mr. Justice Strong, “that in the absence of some constitutional inhibition the power of a State to appropriate its money, however raised, is limited only by the sense of justice and by the sound discretion of its Legislature. If the power to tax be unrestricted, the power to appropriate the taxes is necessarily equally so.” (16 Wall. 675)

And Mr Justice Field adds: “Where the interests of the public and of individuals are blended in any work or service imposed by law, whether the cost shall be thrown entirely on individuals or upon the State or be apportioned between them, is matter of legislative direction.” (142 U.S. 395)

III. If high schools are for the common good, not only has the State power to maintain them, but it is its bounden and solemn obligation to do so. “It is not only the right, but the bounden and solemn duty of a State,” says the Supreme Court, “to provide for its general welfare, by any and every act of legislation which it may deem to be conducive to this end.” (11 Pet. 139)

Hence, I conclude that the existence of the sovereignty, the power to exercise it, and the duty to do so, are all political problems to be determined by the Legislature—and solely on the inquiry whether the education in question is for our common good.

IV. I maintain, therefore, the broad proposition that a high school education free, universal, and compulsory, is now necessary for our common good. What must be the fundamental elements of such an education? What the unified system of which it is a part? What its legalized courses and curricula? And why universal, free, and compulsory? I offer my suggestions with deference. Time will allow me to state them categorically only. Some are new to academic discussion; but tested by legal standards they seem conservative deductions from the premises.

(1) Such an education, I maintain, should have as its fundamental elements the intellectual, moral, economic, and political instruction of all the people. Like vertebrae in the human frame,

these elements should run through and unify our whole graded, standardized, and tax-supported system of public education.

(2) Such a system I would divide into three grades only—common schools, high schools and colleges, and universities.

The high school system of the State includes high schools, academies, and academic departments of union free schools. For convenience I shall hereafter refer to them collectively as high schools. At its next session I would have the Legislature establish a minimum high school course; by graded appropriations I would encourage all schools under such minimum to raise their courses; and after a reasonable time I would have all high schools that do not meet the fixed requirements fall back into the common school grade. What the minimum course should be is a political question to be determined by the Legislature. There are now one, two, three, and four-year high school courses. I would have, instead, one fixed standard. I advocate a minimum legal standard of four years. Relative to the demands of the age, it would be no higher than was a common school education a generation ago.

In the same statute I would have the Legislature establish also a maximum high school course. I would have the State liberally assist each county to maintain at its option, in connection with its best located and most flourishing high school, a four-year post-graduate course, to be known as the county college, free to high school graduates. Finally, I would have the Regents, under existing authority, standardize the curricula of high schools and county colleges, and on graduates of the former confer a standardized State diploma, and on graduates of the latter A.B., B.S., or any other appropriate academic degree.

The third and final grade should be the university. I would consider a university complete and efficient as it approximated the German ideal—an aggregation of coordinated faculties that would furnish special instruction for the chief vocations of life.

I realize that this plan would work a revolution in higher education. As surely as public high schools of the present generation

are eliminating private academies, so surely would county colleges eliminate all others from the public education of the State. They would both cover the same field; and the county college being free, and, more important still, bringing collegiate instruction to the doors of the students, would gradually supplant all non-sectarian, collegiate education. The private college would not disappear, but be expanded into the greater university. Thousands of high schools would pour their students into county colleges, whence many times the present number of college graduates would pass on to the universities. Witness the evolution of Columbia, New York, Union, Syracuse, Rochester, Alfred, and St Lawrence into universities—prosperous and powerful forces in the expansion of the higher education of the State.

The Legislature appropriates annually a large sum for Cornell, and this year the university was given \$250,000 additional for an agricultural college.

I make no criticism of these appropriations. They are for the highest public good. But why confine them to Cornell? There is Syracuse University, for instance, more centrally located, doing a magnificent public service, and not one of its 2,000 students receiving a cent from the public funds. There, too, are New York and Columbia, towering aloft on their opposite heights, uplifting the life of the great metropolis and shedding intellectual glory over the whole nation; yet they receive no munificent appropriations from the public treasury.

After the establishment of standardized high schools and county colleges, I would have not one, but all non-sectarian universities at their option made public educational institutions, to the extent at least that they should receive State aid, pro rata to free tuition furnished to all graduates of county colleges.

(3) Such an education should be universal, free and compulsory.

It should be universal. "If the intelligence, virtue, and prosperity of society demand higher education," said Governor Seymour, "if the personal and property welfare of all the citizens are promoted by it, then the public good calls for schools where it can be taught to all." Democracy is founded on the education of the

masses. Democracy requires equality of citizenship. Equality requires universal and uniform education. Universal and uniform education require higher education in every branch necessary for the moral, intellectual, economic and political good of the State. Hence, high schools should be provided for all, if for any; for the poorest citizen as well as for the richest; for the youth of the sparsely settled Adirondack districts as well as for the children of the crowded metropolis.

It should be free. As Gov. Odell explained, it should be free for all students. Whether it should be free for towns and cities and counties as well, and be supported solely by the State—in short, “free for all at the expense of all,” or whether the State and its minor political divisions should bear the increased burden jointly—these are political questions for legislative determination. Either of two simple statutes, in addition to the present powers of the Regents and Commissioner, would do much to insure free, high school education for all our people. Increase the appropriations along the lines of the Horton and non-resident tuition laws; or pass a statute similar to that of Massachusetts, compelling minor political divisions to provide or pay for a designated standard of higher education for all their children. Finally, in the next Constitution let high school education, equally with common school education be made obligatory upon the Legislature, universal and free, for all the people of the State.

It should be compulsory. The inexorable logic that justifies compulsion for the first eight years of public education would do so for four more. The serious objection that youth of high school age should be earning their livelihood instead of attending school would have less force than heretofore, for the high school education I propose would be economic—an immediately remunerative investment and an ultimate equipment that would enable the average citizen to earn far more in his life vocation than he would lose by a four-year compulsory attendance.

It should however be gradual and as elastic as local circumstances permit. It could be made one or two years at first, to be increased to three or four. In our large cities it might be confined

to evening high schools. But as this education would be free, for all, at the public expense and for the public good, I know no valid reason why all citizens under twenty-one years of age should not be compelled to complete such a course or its equivalent or be dealt with as any other persistent lawbreakers and defiant foes of the commonwealth.

(4) Such an education is necessary for our intellectual good. The people of New York are now 8,000,000 strong. Within a generation they will number many millions more. Through our ports are pouring in a continuous flood the peoples of the Old World, while through a hundred inland gates come in steady file the citizenry of a continent. New York is the lodestone of the world that draws all men unto it. And within this State it is literally the survival of the fittest, from the poorest farm-hand in Clinton county to the all-powerful magnate of Wall street. Stupendous are the tasks that confront us, fierce and relentless the competition; and entered the lists for the prizes are not our 8,000,000 people alone, but the best trained and intellectually equipped experts of the world.

To meet these demands, we guarantee our citizens a common school education. That is our constitutional standard of public intelligence. Practically, it is the standard of a generation ago. Can any one seriously contend that it adequately equips our citizens for the tremendous intellectual demands upon them? The truth is, for years we have been so overwhelmed by our material progress that we have not realized the astounding disparity between our intellectual and material growth.

Go back a generation and contrast the expansion of high schools and of representative material interests. Steam railroad construction and equipment, for instance, has increased 523 per cent; freight carried, 500 per cent; street railroad construction and equipment, 2200 per cent; passengers carried, 719 per cent; assets of life insurance companies, 539 per cent; resources of trust companies, 1706 per cent; deposits, 1760 per cent; and aggregating all its material resources, the wealth of the State has grown from \$6,500,841,264 to \$13,062,300,000; while high school attendance,

the true test of growth, has increased 161 per cent; high school teachers, 278 per cent and State appropriations from \$34,757 to \$249,351. Meanwhile, thousands upon thousands of positions of profit and honor and trust, requiring the highest intellectual qualifications, after fair competition, are deliberately awarded to more competent competitors from beyond our borders. Call the roll of your acquaintances and you will find manufacturers, merchants, financiers, editors, teachers, lawyers—men in every business and profession of life, from without the State, holding positions that might have been filled by a native born citizenry.

I am not arguing for the exclusion of any man—Russian peasant or favorite son of a sister State. I maintain simply that our citizens must have a higher average intelligence, or go down before the superior intellectuality of our competitors; and that a four-year high school course with four years more optional in a county college would equip them with such an average intelligence that they could compete with any citizenry in the world.

(5) Such an education is necessary for our moral good. I desire no misunderstanding about the morality I advocate. I plead for no deistic ethics. I want no emasculated morals. I would have the morality of the high schools based squarely upon the Christian religion. I believe as Seward did, that "no democratic government can stand but by the support of Christianity." This is a religious people, and a Christian nation. It is the civilization of Christ, and not of Confucius or Buddha or Islam. The logic is inexorable. If our morality cannot be divorced from our civilization, nor our civilization from Christianity, nor Christianity from the Christian religion, nor the Christian religion from its Holy Book—then the highest good of the State requires that we shall teach the cardinal principles of the Christian religion, revealed in the Bible, as the basis of public morality. "Our ancestors," said Webster, "established their system of government on morality and religious sentiment. Moral habits, they believed, cannot safely be trusted on any other foundation than religious principle, nor any government be secure which is not supported by moral habits." Hence his logical conception of public education.

"The attainment of knowledge does not comprise all which is contained in the larger term of education," he said. "A profound religious feeling is to be instilled and pure morality inculcated under all circumstances. All this is comprised in education."

I go one step further and hold that it is not optional with but obligatory upon, New York to maintain such a morality for the common good. Chancellor Kent, while Chief Justice, said: "Christianity in its enlarged sense, as a religion revealed and taught in the Bible, is not unknown to our law." "The people of this State profess the general doctrines of Christianity, as the rule of their faith and practice. . . . We are a Christian people, and the morality of the country is deeply ingrafted upon Christianity." (8 John, 291)

Such also is the opinion of the Supreme Court of the United States. "This is a religious people. . . . This is a Christian nation. . . . Every constitution of every one of the forty-four States contains language which either directly or by clear implication recognizes a profound reverence for religion and an assumption that its influence in all human affairs is essential to the well being of the community." (143 U. S. 457)

And by the Ordinance of 1787 and by Article VI of the Federal Constitution moral and religious education are declared necessary for the common good. "Religion, morality and knowledge," declares the Ordinance, "being *necessary to good government* and the *happiness of mankind*, schools and the means of education shall forever be encouraged." That is to say, not knowledge alone, but religion and morality are necessary for the common good, and therefore must permeate, inspire and control all public education. This Ordinance, says the Supreme Court, under Article VI "has become a part of the Constitution" of the United States (14 Pet. 417), and is, therefore, as much a directive political principle for the whole country as is the Declaration of Independence. Instead, therefore, of containing no recognition of religion and morality, as is generally supposed, the Constitution of the United States recognizes both and makes their encouragement as mandatory as the enactment of laws, the appro-

priation of moneys, or the performance of any other constitutional obligation. I conclude, therefore, that this State, under both the Federal Constitution and social compact, is obligated in all public education and consequently in all high school education to maintain the highest moral standard—a morality based upon the saving and regenerating truths of the Christian religion.

(6) Such an education is necessary for our economic good. The object of economic education is to fit citizens for the production, management and use of wealth. Heretofore our intellectual energies have been devoted largely to production; in the future we must study the management and use of wealth, as well. The aggregate result of the highest economic education should be the greatest possible production of wealth and its wisest management and use. It is estimated that at 35 years of age the earning capacity of a man with common school education and special training for his work is twelve and a half times greater than that of an illiterate, untrained man; that a high school education and training doubles that efficiency and that a college education and training add 100 per cent more; so that the earning capacity of a high school graduate should be 25 times greater, and of a county college graduate 50 times greater, than that of an illiterate day laborer.

A comparison with other States shows the almost incredible annual money loss of New York, due largely, I contend, to its low standards of economic education. In 1890 each person in New York produced \$143.51, and in Massachusetts \$167.68, while the average schooling received by each inhabitant of New York was 5.32 years, and of Massachusetts, 6.15. If the per capita production of New York had equaled that of Massachusetts, the wealth of New York would have been increased by \$221,169,853 annually.

The only wealth statistics for 1900 now available are those of manufactures. Taking these alone, the production per capita per year in New York in 1900 was \$299.44; and in Massachusetts \$369, while the average schooling received by each person in New

York was 5.96 years, and in Massachusetts, 7.32 years. Had the value of manufactured products per capita in New York been as great as in Massachusetts, the wealth of New York would have been increased by \$494,751,999 annually.

I do not contend that our productive capacity is controlled entirely by public economic education; but it is no mere coincidence that economic education is practically unknown in New York, while it flourishes in Massachusetts, nor that the per capita production and schooling in the two States, for two decades, have been in almost perfect mathematical proportion.

Whatever the cause, \$494,751,999 annually is an appalling economic loss to our body politic; and unless New York is prepared to make its citizens economic specialists to the extent at least of a high school education, with four years more optional in county colleges, it must ultimately fall to the rear and abandon its economic primacy.

(7) Such an education is necessary for our political good. When men organize themselves into a state they pass *ipso facto* from uncontrolled nature into citizenship. They cease to be an unorganized mob and become an organized citizenry. That organization creates citizenship. It is the relationship thereby established. It is purely political; it exists solely between the individual and the body politic; and is evidenced by the social compact. This relationship, the Supreme Court has defined; on the part of the State it is protection of citizens; on the part of the citizen, allegiance to the State. "Allegiance and protection," said Chief Justice Waite, "are in this connection reciprocal obligations; the one is a compensation for the other; allegiance for protection and protection for allegiance." (21 Wall. 166) But under the social compact the citizens of this State sustain a dual role—they are both sovereigns and subjects—they are both the State and the people. They are citizens, as Chief Justice Taney said, and yet "constituent members of the sovereignty"; they are "members of the political community" as Chief Justice Waite said, and yet, as Chief Justice Jay put it, "joint tenants of the sovereignty." Hence each one of our citizens is a sovereign

ruler over all the others; he is also a subject owing allegiance to the body politic. As a citizen-sovereign he must protect his subjects, that is as the courts explain, make and administer laws; and for this he must have the highest political intelligence, both to devise wise laws and to administer them for the collective good. As a citizen-subject he must bear allegiance—that is render to the government “loyal devotion and support,” as Mr. Justice Miller said, and the “obligation of fidelity,” as Mr. Justice Field explained; and for this he must have such a high standard of political intelligence as will enable him to understand and obey the laws and loyally support the State.

But every State citizen may also be a national citizen; and when we consider that as such he is also both sovereign over 80,000,000 national subjects and subject to 80,000,000 national sovereigns, we must admit that a citizen of New York is a constituent part of the most powerful, as well as the most complicated, political machinery on earth.

Common school education may prepare our citizens for their duties as citizen-subjects—even that is doubtful; but no one pretends that it can qualify them as citizen-sovereigns.

“The system which makes all men members of the governing class,” said Governor Seymour, “demands higher education than the mere primary elements of learning.” And referring to higher education, it is he said, “an essential part of our political institutions. I claim that it is entitled to the same measure of support and confidence that we give to the *structures of our government*.” Here lies the true reason for higher political education; it is the education of the *government*; it is the education of the citizens as sovereigns and rulers.

Does any one imagine that England would hesitate at the highest political education of its sovereigns, or that Germany would begrudge the most advanced and patriotic instruction of its emperors? The duty is no less incumbent on this commonwealth; our sovereigns may number 8,000,000, but the need of a supreme political qualification is personal, and no less imperative.

"What is a power," asked Alexander Hamilton, "but the *ability* or faculty of doing a thing? What is the *ability* to do a thing but the power of employing the means necessary to its execution?" In my opinion a four-year course of political instruction with the opportunity for four years more would supply our citizens with *ability* to serve the common good, and as citizen-sovereigns and citizen-subjects to perform their duties under the social compact with honor to themselves and glory to the State.

(8) Such an education is necessary for our inter-state primacy.

When the Federal Constitution was ratified New York ceded its *international* sovereignty to the United States; in foreign and external relations therefore the State has no sovereignty whatever. It retained, however, and still possesses all the internal and domestic sovereignty it ever had, and all that the most independent nation in the world can possess. "Every State in the Union," said the Supreme Court, "in every instance where its sovereignty has not been delegated to the United States, is as completely sovereign as the United States are in respect to the powers surrendered." (2 Dall. 435) And in the leading case since the War, Chief Justice Chase said: "The people of each State compose a state, having its own government and endowed with all the functions essential to separate and independent existence. . . . Therefore there can be no loss of separate and independent autonomy to the States through their union under the Constitution." (7 Wall. 725) And to one who interprets the decisions of the Supreme Court as an evolution of constitutional government, it is apparent that while the spirit of nationality is growing, the 14th Amendment has done and will do more to promote the sovereign prerogatives of the States than nullification, secession or any other antebellum form of State rights. There is, therefore, a sovereignty of the State, as well as a sovereignty of the United States. And it is the duty of the State to maintain its sovereignty within the Union, its honor, character and inter-state standing with the same zeal and fidelity with which the Federal government defends the dignity of the Nation in its foreign relations.

In material resources New York is now the most powerful and progressive sovereignty in the Union. But it is subject to the inexorable law of republics. It cannot permanently maintain its economic primacy unless it stands first also in intellectual and moral power. How far it falls short of this standard let the Federal census bear witness. Eighteen other States and territories have a lower percentage of general illiteracy than New York; 25 have a lower percentage of illiterate whites; 34 have a lower percentage of illiterate foreign whites, and no less than 47 have a lower number of illiterate adults. In 1870 New York stood eleventh in literacy, in 1890 fifteenth, and in 1900 nineteenth, and since 1880 no less than 12 States have outstripped and outranked New York in the education of their people.

If it be argued that the remedy for such illiteracy is more common schools, that people do not attend high schools to learn to read and write—then on the basis of high school education alone, our inter-state standing is deplorable.

Taking attendance as the ultimate test, New York stands seventeenth only among the States of the Union. All New England except Rhode Island, surpasses us. Ohio outranks us by 18 per cent, Iowa by 37, and Nebraska by 53. Kansas, Colorado, and California all excel us. On any theory our inter-state high school rank is inexcusable—and considering our general economic primacy, I say again it is deplorable.

In 1900, we had a high school population of 641,030, and a high school attendance of only 79,365; 561,665 citizens of the State, male and female, should have had a free, public, high school education, not one of whom received it. Should their education be pushed along the lines I have indicated to-night, with the intelligent and determined zeal that marks every branch of our material expansion, I am confident New York would become not alone first in population, wealth, commerce, industry, and finance, not alone first in capital, railroads, canals, and shipping, but first also in high schools, colleges, and universities—the educational elements necessary to a permanent inter-state primacy.

Such is my theory of the true expansion of the Empire State—a compulsory, free, high school education for every citizen within our borders—at once a reform and a revolution, lifting the minds and souls of our people to a higher level and making high schools in the future as necessary and universal as are common schools to-day.

So, to-night, I plead for such an education.

I plead for the higher education for which Governor Clinton besought the blessing of the Supreme Giver of all good.

I plead for the higher education that Governor Seward maintained was indispensable to the expanding powers of our commonwealth—to promote which he said was “the most important duty of the age.”

I plead for the higher education that Governor Seymour called “an essential part of our political institutions, entitled to the same measure of support and confidence that we give to the structures of our government.”

I plead for the higher education that Governor Odell has urged upon educators and legislators, elevated in standard, circumscribed by no sordid motives, encouraged by the public funds, and so maintained, he said, as “to turn out into the affairs of life the educated man and the educated woman, who shall always be the best type of American citizenship.”

Finally, I plead for a higher education that shall be intellectual, moral, economic, and political. Give such an education to all our people, and the State will become as Milton said, “one huge Christian personage, one mighty growth and stature, as big and compact in virtue as in body,” and education will assume its true function,—a power that will dominate every other sovereignty in the commonwealth.

V. That the supreme blessings of such an education may be ours, I plead to-night for immediate and ample appropriations.

These should include three items: First, an appropriation to educate a reasonable proportion of our non-attending high school population. In 1900, 88 per cent of our common school population attended school. Why should not our high school percentage

be the same? In that year our high school population was 641,030, and attendance 79,365, or 12.38 per cent. Eighty-eight per cent would be 564,106, or an increase of 484,741. To educate them on the same basis would cost the State \$1,522,086. Second, an appropriation for county colleges equal to county appropriations up to, say, \$10,000 each. Only the richer counties would make appropriations at first, but if the sixty-one counties all made \$10,000 appropriations immediately, this item would be \$610,000. Third, the State should do its share, and at once, and irrespective of other appropriations, to remedy the palpable financial injustice to all high school teachers.

In 1902 they numbered 4,794, and their average annual salary was \$729. In the same year the average earnings of mechanics and day laborers throughout the State were: stone setters, \$1,500; marble cutters, \$1,356; metal lathers, \$1,175; stone cutters, \$1,016; bricklayers, \$948; housesmiths, \$942; and plumbers, \$902; total average \$1,119, \$390 more than the average high school salary.

In New York city the wages of an ordinary hod carrier in 1902 averaged \$767; \$38 more than the average high school teacher. Should high school teachers receive the average wages of hod carriers, one-half the increase would cost the State \$91,086; should they receive the average wages of plumbers, one-half the increase would be \$417,078; or of bricklayers, \$522,646. Taking the latter sum, the three appropriations would be \$2,654,732, or a million and a quarter less than the State now annually appropriates to common schools alone. But this is for a maximum system, which, aside from appropriations for teachers, would not be in full operation for a decade. Adding the present appropriations, a conservative estimate of the maximum average annual expenditures for the next ten years would not exceed \$1,452,041; \$2,500,000 less than our present annual common school appropriations. This would be the infinitesimal tax of eleven thousandths of one per cent on the wealth of the State. It would be even less than three-tenths of one per cent of the \$494,751,999 which the State might annually add to its productions by a high school education of all its citizens.

The wealth of New York is inconceivable. It is several billion dollars greater than the wealth of any other State. It is three

and a third billions greater than the wealth of all New England. It is a billion greater than the wealth of all Pacific Coast and Rocky Mountain States. It is greater even than the wealth of all States bordering on the Atlantic excepting Maryland, beginning at Canada and stretching to the Gulf. Many of our counties, too, are richer than sovereign commonwealths, New York county, for example, exceeds 43 of the States and territories; Kings, 24; Erie, 8; and Albany, Monroe, Westchester and Queens, one or more each. The State's expenditures for material purposes are all proportionate to its colossal wealth. For example, we are expending \$100,000,000 for enlarged canals and \$50,000,000 for good roads. No wiser use of the public funds can be made for purely material improvements.

And, yet, why take \$150,000,000 from the billions of our wealth to improve roads and canals, and only \$249,351, or two thousandths of one per cent annually for the higher education of the minds and morals of our people? So to-night I plead for immediate and ample appropriations for our high schools—out of the bounteous resources and overflowing treasury of the commonwealth.

High school educators of the Empire State! Noble band of public servants! Four thousand eight hundred strong! I bow before your lofty devotion to the public good! I pay humble tribute to your patriotic services! Endowed with superior abilities, equipped for service by careful training, entrusted with responsible public duties, overburdened with work, poorly paid—you have done more for the common good and have received less in return, than any other public servants of the State! The plan I submit to-night will advantage you and supremely profit the commonwealth. I propose a broad, conservative and expanding high school system. Contemplate its splendid possibilities! Behold its illimitable opportunities!

In the State there are 9,955 common school, 44 municipal, and 651 Union Free School, districts. In the municipal districts there are 159 high schools, in the Union school districts 635, and in the 9,955 common school districts, only 18. How many other common school districts are provided with reasonable high school facilities by contiguous or nearby high schools, it is impossible to deter-

mine. To be conservative, however, I will assume that an aggregate of 937 may eventually be provided with high school facilities under the non-resident tuition law. This will still leave the appalling total of 9,000 school districts in the State to be provided with high schools or high school facilities. In the 44 municipal districts there are 1,000 sub-districts and 159 high schools. Taking this average, our 9,000 common school districts would require 1,500 high schools more. Or if the 1900 basis of 705 schools for 79,365 students be taken, then 4,300 more would be required for 88 per cent of the present non-attending high school population. Whether it be 1,500 or 4,300 the possibilities of high school expansion are literally boundless!

Hail then, high school educators! Watchmen on the towers of state! Do you not behold the dawn of a more resplendent day? Instead of hundreds of high schools, there will be thousands; instead of tens of thousands of students, hundreds of thousands more!

The true expansion of the Empire State! Who hath appointed its bounds, that it cannot pass? Who hath said, thus far and no farther? Already the sceptre of Anglo-Saxon civilization is moving westward from the Thames to the Hudson, and on its banks, in population, finance, commerce, art, literature—all that constitutes the highest and best civilization, you will soon behold the metropolis of the world. And the State, methinks I behold it even now realizing the vision of Milton—a noble and puissant sovereign, “rousing herself like a strong man after sleep and shaking her invincible locks”; our imperial commonwealth, rousing herself to the vast opportunities and tremendous responsibilities of a new era of educational expansion; her citizen-sovereigns and citizen-subjects all enthused with spiritual vigor; her standards of higher education leading the van, and her high schools, colleges and universities directing all the forces of her advancing civilization;—New York with her sublime and infinite possibilities, destined to become not alone the centre of finance and commerce, not alone a beneficent intellectual primacy among her sister states, but the most puissant and dominating, the most lofty and inspiring educational force throughout the world!

ATTENDANTS AT

42d University Convocation of the State of New York

Under names of institutions those not specially designated are teachers and instructors.

The name of a college in curves following the name of a person is that of the institution where he was educated.

Regents of the University

1 Whitelaw Reid M.A. LL.D. *Chancellor*, 2 St Clair McKelway M.A. L.H.D. LL.D. D.C.L. *Vice Chancellor*, 3 Daniel Beach (Alfred, Union and Hamilton) Ph.D. LL.D., 4 Pliny T. Sexton (Union) LL.D., 5 T. Guilford Smith (Rensselaer Polytechnic Institute) M.A. C.E. LL.D., 6 Albert Vander Veer M.A. Ph.D. LL.D. M.D., 7 William Nottingham (Syracuse) M.A. Ph.D. LL.D., 8 Charles A. Gardiner (Hamilton and Syracuse) Ph.D. L.H.D. LL.D. D.C.L., 9 Edward Lauterbach (College of the City of New York) M.A., 10 Eugene A. Philbin LL.B. LL.D.

State boards of examiners

Nurse Examiners. 11 Sophia F. Palmer, *president*.

Advisory councils

Convocation. 12 αPrin. Floyd J. Bartlett (Yale) B.A. Auburn High School; 13 αDean James E. Russell (Cornell) Ph.D. LL.D. Teachers College, Columbia University, New York; 14 αSup't Darwin L. Bardwell (Amherst) M.A. New York; 15 αProf. George P. Bristol (Hamilton, Johns Hopkins and Heidelberg) M.A. Cornell University.

College. 16 αPres. Rush Rhees (Amherst) M.A. D.D. LL.D. University of Rochester.

Academic. 17 αPrin. John F. Glavin (St Charles College, Md.) M.A. St John's Academy of Rensselaer.

Medical. 18 αWillis G. Tucker Ph.D. M.D. Union University, Albany Medical College.

Dental. 19 αFaneuil D. Weisse (New York Univ.) M.D. New York College of Dentistry; 20 αGeorge B. Snow (Pennsylvania) D.D.S. University of Buffalo, College of Dentistry.

Education Department

21 Andrew S. Draper LL.D. *commissioner*; 22 Edward J. Goodwin Lit.D. *second assistant commissioner*; 23 Harlan H. Horner B.A. *secretary to the commissioner*; 24 P. M. Hull (Hamilton) M.A. *institute conductor*; 25 Harriette E. Munsell, *assistant printing clerk*.

Division of Attendance. 26 James D. Sullivan, *chief*.

a See also institutions represented.

Division of Examinations. 27 Charles F. Wheelock (Cornell) B.S. *chief*; 28 Thomas E. Finegan (N. Y. S. Normal) M.A. *assistant in charge of teachers examinations*; 29 Henry L. Taylor (Syracuse) M.A. Ph.D. *assistant in charge of foreign certificates*; 30 Alice H. Hall (N. Y. S. Normal) *senior examiner in mathematics*; 31 Everett O'Neill (Cornell) Ph.B. *senior examiner in science*; 32 Laura M. S. Van Loan (N. Y. S. Normal) *junior examiner in English*; 33 Julia Bertha Kellogg (Syracuse) Ph.B. *junior examiner in modern languages*; 34 Lona E. Morton, *junior examiner in ancient languages*; 35 Charlotte L. Estes (Brockport Normal and Vassar) *junior examiner in history*; 36 I. O. Crissy, *senior examiner in commercial work*; 37 Annie T. Keyser (Vassar and Cornell) *editor and proof reader of question papers*; 38 Grace A. Jones (N. Y. S. Normal) Pd.B., 39 George H. Quay (N. Y. S. Normal) *examiners*.

Division of Inspections. 40 Charles N. Cobb (Syracuse) M.A., 41 S. Dwight Arms (Hamilton) M.A., 42 W. D. Graves (N. Y. S. Normal) Ph.B., 43 A. C. Hill (Colgate) Ph.D., 44 E. J. Peck (Williams) M.A. LL.D., 45 W. D. Johnson (N. Y. S. Normal), 46 E. F. McDonald (Potsdam Normal), 47 Edward S. Frisbee (Amherst) D.D. *inspectors*; 48 James H. Gibson, 49 F. M. Baker, *apparatus inspectors*.

Division of Libraries. 50 Stephen B. Griswold (Albany Law School) LL.B. *law librarian*; 51 Florence Woodworth (N. Y.) B.L.S. *director's assistant*; 52 Elvira L. Bascom (Allegheny) B.A. *assistant*; 53 Agnes E. Flinn, *clerk*.

Division of Records. 54 Charles E. Fitch (Williams) LL.B. M.A. L.H.D. *chief*.

Division of Science. 55 John M. Clarke (Amherst and Marburg) M.A. Ph.D. LL.D. *director*; 56 E. P. Felt (Cornell and Mass. Agric.) D.Sc. *state entomologist*; 57 Joseph Morje, *clerk and stenographer*.

Division of Statistics. 58 Hiram C. Case, *chief*; 59 Alice C. McCormack, *clerk*.

School commissioners

- 60 W. W. Bates, Corinth
- 61 E. S. Comstock, Nassau
- 62 Orin Q. Flint (N. Y. S. Normal) Athens
- 63 Myra L. Ingalsbe (N. Y. S. Normal) Hartford
- 64 William J. Lewis (Cortland Normal) Westmoreland
- 65 Floyd S. Lowell, Schenevens
- 66 William H. Siglar, North Germantown
- 67 Clarence E. Van Buren, Mayfield

INSTITUTIONS IN THE UNIVERSITY

Colleges for men

Canisius College, Buffalo. 68 Rev. F. X. Sindele (Canisius) M.A.

College of St Francis Xavier, New York. 69 P. F. O'Gorman (Woodstock, Md.) S.J.

Hobart College, Geneva. 70 Pres. Langdon C. Stewardson (Kenyon College) LL.D.

Manhattan College, New York. 71 Brother Chrysostom (Manhattan) M.A.; 72 Brother Potamian (London Univ.) D.Sc.

New York University. 73 Chanc. Henry Mitchell MacCracken (Miami Univ.) D.D. LL.D.

Niagara University, Niagara Falls. 74 Rev. P. J. Conroy (Niagara Univ.).

St Bonaventure's College, Allegany. 75 Rev. Joseph F. Butler (St Bonaventure's) O.J.M. *president*.

St Francis College, Brooklyn. 76 Brother Raphael (St Francis) O.S.F. *president*.

St John's College, Brooklyn. 77 Rev. E. L. Carey (Niagara Univ.) C.M. *secretary*.

St John's College, Fordham. 78 Pres. John J. Collins (Mt St Mary's Univ. Md.) S.J.

Syrian Protestant College, Beirut, Syria. 79 Prof. Robert H. West (Princeton) M.A.

Union University, Schenectady. 80 Pres. Andrew V. V. Raymond LL.D.; 81 Prof. F. C. Barnes (Williams and Leipzig) M.A. Ph.D.; 82 Prof. Olin H. Landreth (Union) M.A. C.E.

Colleges for women

Normal College of the City of New York. 83 Prof. James M. Kieran (College of the City of New York, St Francis Xavier, Columbia and N. Y. Univ.) M.A.; 84 Prof. G. M. Whicher (Iowa and Columbia) M.A.

Vassar College, Poughkeepsie. 85 Prof. Le Roy C. Cooley (Union) Ph.D.

Colleges for men and women

Alfred University. 86 Pres. Boothe Colwell Davis (Alfred and Yale) Ph.D. D.D.; 87 Prof. Alpheus B. Kenyon (Alfred) S.M.

Cornell University, Ithaca. ^aProf. G. P. Bristol (Hamilton, Johns Hopkins and Heidelberg) M.A.

University of Rochester. ^aPres. Rush Rhees (Amherst) M.A. D.D. LL.D.

Schools of education

Columbia University, Teachers College, New York. ^aDean James E. Russell (Cornell) Ph.D. LL.D.

New York State Normal College, Albany. 88 Pres. William J. Milne (Rochester) Ph.D. LL.D., 89 E. Helen Hannahs (Chicago and N. Y. S. Normal) B.A. Pd.B., 90 Prof. Mary A. McClelland (N. Y. S. Normal), 91 Mrs Margaret S. Mooney (N. Y. S. Normal), 92 Eunice A. Perine (N. Y. S. Normal), 93 Kate Stoneman (N. Y. S. Normal and Albany Law School) LL.B.

New York University, School of Pedagogy. 94 Prof. J. P. Gordy (Leipsic) Ph.D. LL.D.

Schools of medicine

Cornell University Medical College, New York. 95 William K. Polk LL.D.

New York University, University and Bellevue Hospital Medical College. 96 Egbert Le Fevre, *secretary*.

^a See also Advisory Councils p. 357.

Union University, Albany Medical College. ^aWillis G. Tucker M.D. registrar; 97 Theodore J. Bradley (Union and Rensselaer Polytechnic) B.S. Ph.G.

Schools of dentistry

New York College of Dentistry. ^aFaneuil D. Weisse (New York Univ.) M.D.

University of Buffalo, College of Dentistry. ^aDean George B. Snow (Pennsylvania) D.D.S.

Schools of pharmacy

College of Pharmacy of the City of New York. 98 Prof. George A. Ferguson.

Union University, Albany College of Pharmacy. ^bDean Willis G. Tucker Ph.D. M.D., ^cTheodore J. Bradley (Union and Rensselaer Polytechnic) B.S. Ph.G.

Library schools

New York State Library School. ^dFlorence Woodworth (N. Y.) B.L.S., *director's assistant*.

Technical schools

Alfred University, New York State School of Clayworking and Ceramics, Alfred. 99 Charles F. Binns M.S., *director*.

Special schools

American Institute of Phrenology, New York. 100 Constantine F. McGuire (St Francis College) M.A. M.D.

Academies, high schools and academic departments

Academy of the Holy Names, Albany. 101 Sister M. Fredericka, *principal*.

Albany Academy. 102 Jared W. Scudder (Rutgers) M.A.

Albany High School. 103 Sup't Charles W. Cole (Hamilton) M.A. Ph.D.; 104 Prin. Oscar D. Robinson (Dartmouth) Ph.D.; 105 Bryan O. Burgin (Union) B.E. M.S., 106 Charles A. Horne (Harvard) B.A., 107 Ellen Sullivan.

Amsterdam High School. 108 Prin. Wilbur H. Lynch (Harvard) B.A.

Andes High School. 109 Prin. Montgomery C. Smith (Syracuse) Ph.B.

Athens Union School. 110 Prin. Scott Youmans (Oneonta Normal).

Auburn High School. ^aPrin. F. J. Bartlett (Yale) B.A.

Bainbridge High School. 111 Prin. F. W. Crumb (Alfred) M.A.

Ballston Spa High School. 112 A. A. Lavery (Middlebury) M.A., *supervising principal*.

Bay Shore High School. 113 Prin. Charles W. Mulford (Oneonta Normal).

Binghamton High School. 114 Prin. J. Edward Banta (Amherst) M.A.

Cambridge High School. 115 Prin. Fred J. Bohlmann (Wesleyan) B.A.

^a See also Advisory Councils, p. 357.

^b See also Advisory Councils, p. 357 and Schools of Medicine, p. 359.

^c See also Schools of Medicine, p. 359.

^d See also Division of Libraries, p. 353.

- Canajoharie High School. 116 Prin. Ernest E. Smith (Amherst) B.A.
 Canandaigua Academy. 117 Sup't and Prin. J. C. Norris (Rochester, Williams and Hamilton) M.A. Ph.D.
 Canastota High School. 118 Prin. George H. Ottaway (Hamilton) M.A.
 Castleton Union School. 119 Prin. Elias Gay (Buffalo Normal).
 Champlain Academy, Port Henry. 120 Sister M. Gabriels, *principal*.
 Chatham High School. 121 Prin. Charles S. Williams (Brockport Normal and Cornell) B.A.
 Cherry Valley High School. 122 Prin. Menzo Burlingame (Syracuse) Ph.B.
 Christian Brothers Academy, Albany. 123 John A. Naughton (St Francis Xavier and N. Y. S. Normal) B.A. Pd.B.
 Cleveland Union School. 124 Prin. F. W. Reed (Colgate) Ph.B.
 Cobleskill High School. 125 Prin. G. J. Dann (Union) M.A.
 Coeymans Union School. 126 Prin. H. C. W. Kingsbury (McGill and Queens Univ.).
 Colgate Academy, Hamilton. 127 Prin. Frank L. Shepardson (Brown) M.A.
 Corinth High School. 128 Prin. A. M. Hollister (Hamilton) M.A.
 Corning Free Academy. 129 Sup't Leigh R. Hunt (Hamilton) M.A. Ph.D.
 Cornwall-on-Hudson High School. 130 Prin. Fred C. White (Alfred) M.A.
 Cortland High School. 131 Sup't F. E. Smith (Hamilton) B.A.
 Dansville High School. 132 Prin. E. J. Bonner (Hamilton and Potsdam Normal) M.A.
 De La Salle Institute, New York. 133 Brother Aelred.
 Dolgeville High School. 134 Prin. Thomas C. Wilber (Rochester) M.A.
 Dunkirk High School. 135 Prin. George M. Wiley (Union) M.A.
 East Syracuse High School. 136 Prin. Frank H. Brown (Brockport Normal).
 Egberts High School, Cohoes. 137 Prin. W. C. Tift.
 Elmira Free Academy. 138 Prin. Howard Conant (Union) M.A.
 Fishkill Union School. 139 Prin. Edward B. Du Mond (N. Y. S. Normal).
 Fort Ann Union School. 140 Prin. Amelia Blasdell (Oswego Normal).
 Fort Edward High School. 141 Prin. W. S. Coleman (N. Y. S. Normal) Ph.B.; 142 Isadore M. Gilchrist, *preceptress*.
 Franklin Academy, Malone. 143 Prin. Lamont F. Hodge (Colgate) B.A., 144 C. A. Butler (Oneonta Normal).
 Fulton High School. 145 Prin. G. E. Edmunds (Brockport Normal and Williams) B.A.
 Fultonville High School. 146 Prin. O. C. Hotchkiss (Union) M.A.
 Glens Falls Academy. 147 Mrs Winifred H. Durfee (Oberlin) *preceptress*.
 Gloversville High School. 148 Sup't James A. Estee (Alfred) M.A.; 149 Prin. A. R. Brubacher (Yale) Ph.D.
 Goshen High School. 150 Prin. Guy Halsey Baskerville (Syracuse) B.A.
 Greenwich High School. 151 Prin. C. L. Morey (Syracuse) Ph.B.
 Groton High School. 152 Prin. J. Wells Reed (Williams) B.A.
 Hancock High School. 153 Prin. C. V. Bookhout (N. Y. S. Normal) Pd.B.
 Haverling High School, Bath. 154 Prin. Walter T. Palmer (Genesee Normal and Ann Arbor) M.A. Ph.D.

- Herkimer High School.** 155 Sup't Schuyler F. Herron (Syracuse) M.A.
Holy Cross Academic School, Albany. 156 Sister Climaca (Wilkesbarre (Pa.) Normal), 157 Sister Zenobia (Wilkesbarre (Pa.) Normal).
Hoosick Falls High School. 158 Sup't H. H. Snell (Alfred) Ph.B.
Hornellsville High School. 159 Sup't and Prin. Elmer S. Redman (Illinois Wesleyan and Alfred) M.A. Ph.D.
Hudson High School. 160 Sup't and Prin. F. J. Sagendorph (Rutgers) M.A.
Ilion High School. 161 Sup't and Prin. A. W. Abrams (Cornell) Ph.B.
Ithaca High School. 162 Sup't and Prin. F. D. Boynton (Middlebury) M.A. Pd.D.
Jamestown High School. 163 Mary Cogswell Peckham, 164 Carrie R. Price, *librarians*.
Johnstown High School. 165 Sup't Frank W. Jennings (Hamilton) Ph.D.
Kingston Free Academy. 166 Sup't S. R. Shear.
Lake George Union School, Caldwell. 167 Prin. James A. Barkley (Geneseo Normal and Union).
Lansingburg High School. 168 Sup't G. F. Sawyer (Amherst) B.A.; 169 Prin. James R. Craighead (Williams) M.A.; 170 Edna H. Howard (N. Y. S. Normal).
La Salle Institute, Troy. 171 Prin. Brother Arnold (Manhattan) M.Sc., *principal*; 172 Brother Paphylenus, *vice principal*.
Leavenworth Institute and Wolcott High School, Wolcott. 173 Prin. Lewis H. Carris (Hobart) B.L.
Lestershire High School. 174 Prin. Frank M. Smith (Hamilton) M.A.
Liberty High School. 175 Prin. Harvey M. Dann (Syracuse) B.A.
Lindenhurst Union School. 176 Prin. Reinhold A. Mertching (Oneonta Normal).
Little Falls High School. 177 Vice Prin. Charles W. Lewis (Hamilton) B.A.
Lockport High School. 178 Prin. Oliver J. Morelock (Franklin and Marshall) M.A.
Matteawan High School. 179 Prin. Earlman Fenner (Syracuse).
Mayfield Union School. 180 Prin. L. W. Lawrence (Middlebury).
Mechanicville High School. 181 Sup't L. B. Blakeman (Hamilton) M.A.; 182 Prin. Marvin E. Jones (Geneseo Normal).
Middleburg High School. 183 Prin. S. C. Kimm (Allegheny and Hamilton).
Millbrook Memorial School. 184 Prin. William R. Anderson (Oneonta Normal).
Monticello High School. 185 Prin. Alexander J. Glennie (Hamilton) M.A.
Moravia High School. 186 Prin. John D. Bigelow (Hamilton) M.A.
New Berlin High School. 187 Prin. Fred N. Moulton (Union).
New Hartford High School. 188 Prin. A. M. Scripture (Hamilton) M.A.
New York. a D. L. Bardwell (Amherst) M.A., 189 Cornelius C. Franklin (Union) M.A., *district superintendents*.
New York State School for the Blind, Batavia. 190 Sup't Olin Howard Burritt (Rochester) M.A.; 191 Nita Ford Dustin (Smith) B.L.

Newark High School. 192 J. A. Reed B.S. M.D., *secretary board of education*; 193 Prin. C. A. Hamilton (Rochester) M.A.

Newburgh Free Academy. 194 Sup't James M. Crane (N. Y. S. Normal and New York Univ.) M.A. Pd.M.; 195 Prin. William H. Doty (New York Univ.) Pd.M.; 196 Vice Prin. Dora M. Townsend (New York Univ.) Pd.M.

Niagara Falls High School. 197 Sup't R. A. Taylor (Potsdam Normal); 198 Prin. Thomas Bailey Lovell (Rochester) M.A. LL.D.; 199 Chris A. Hartnagel (N. Y. S. Normal and Union) B.S. Pd.B.

Northport High School. 200 Prin. E. M. Sanford (N. Y. S. Normal and Syracuse) B.A. Ph.B.

Ogdensburg Free Academy. 201 Prin. Fred Van Dusen (Union) M.A. Ph.D.

Oneonta High School. 202 Prin. Robert S. Roulston (St Lawrence) M.S.

Oxford Academy and Union School. 203 Prin. Robert K. Toaz (Rochester) B.A.

Oyster Bay High School. 204 Prin. B. Frank Cooley (Brockport Normal and New York Univ.).

Patchogue High School. 205 Prin. W. E. Gordon (N. Y. S. Normal and New York Univ.) Pd.D.

Patterson Union School. 206 W. Edward Hinman (Colgate and N. Y. S. Normal) B.S.

Plattsburg High School. 207 Prin. Frank K. Watson (Princeton) M.A.

Port Washington Union School. 208 Prin. Arthur O. Bredgman (Syracuse) Ph.B.

Poughkeepsie High School. 209 Prin. C. H. Woolsey (Harvard and Washington Univ.) M.A. Ph.D. LL.B.

Pulaski Academy and Union School. 210 Prin. Charles M. Bean (Cornell) B.S.

Ravena High School. 211 Prin. Benjamin I. Morey (Cortland Normal).

Rensselaer High School. 212 Prin. Louis F. Robins; 213 Hattie C. Bagg (N. Y. S. Normal); 214 Minnie Bates (N. Y. S. Normal).

Richfield Springs High School. 215 Prin. Albert H. Watkins (Buffalo Normal and Syracuse) B.A.

Rye Union School. 216 Prin. Forrest T. Shutts (N. Y. S. Normal).

Sag Harbor High School. 217 Prin. O. W. Armstrong (N. Y. S. Normal) Pd.B.; 218 Vice Prin. W. L. Shubert (N. Y. S. Normal).

St John's Academic School of Schenectady. 219 Sister Magdalen of Sacred Heart; 220 Sister Mary Donald.

St John's Academy of Rensselaer. aPrin. John F. Glavin (St Charles' Coll. Md.) M.A.

Sandy Hill High School. 221 Prin. Frances A. Tefft.

Saratoga Springs High School. 222 Sup't Thomas R. Knell (Ct. Wesleyan) M.A.; 223 Prin. G. W. Kennedy (Syracuse) M.A.

Schenectady Union Classical Institute. 224 Prin. Arthur Marvin (Yale) M.A.

Seacliff High School. 225 Lena L. Smith (Geneseo Normal).

Shelter Island Union School. 226 Prin. Randolph F. Clark (Williams and N. Y. S. Normal) B.A. Pd.B.

- Solvay High School.** 227 Sup't C. O. Richards.
South Glens Falls High School. 228 Prin. W. J. Green (N. Y. S. Normal) Pd.B.
South Side High School, Rockville Center. 229 Prin. Andrew J. MacElroy (Cornell) B.S.
Southold Union School. 230 Prin. Frank E. De Gelleke (Rochester) B.A.
Stillwater High School. 231 Henry J. Gibson (Brockport Normal).
Suffern Union School. 232 Prin. C. A. Woodworth (Ohio).
Syracuse High School. 233 Sup't A. B. Blodgett (Syracuse) Pd.D.; 234 Prin. W. K. Wickes (Amherst); 235 W. D. Lewis (Syracuse) M.A.
Tappan Zee High School, Piermont. 236 Prin. Leon J. Cook (Harvard and N. Y. S. Normal) B.A. Pd.B.
Ticonderoga High School. 237 Prin. Fred V. Lester (Colgate and Illinois Wesleyan) M.A. Ph.D.
Tivoli Union School. 238 Prin. Charles W. Townsend (Wesleyan and N. Y. S. Normal) Ph.B.
Troy High School. 239 Sup't J. H. Willets; 240 Prin. M. H. Walrath (Syracuse) M.A.
Unadilla High School. 241 Prin. A. E. Barnes (Union and N. Y. S. Normal) M.A.
Union High School. 242 Prin. J. L. Lusk (Cortland Normal).
Utica Free Academy. 243 Sup't Martin G. Benedict (Colgate) Ph.D.
Valatie High School. 244 Prin. Winthrop L. Millias (Colgate).
Wappingers Falls Union School. 245 Prin. Samuel Mansfield (Union) M.A.
Warwick Institute. 246 Prin. H. V. Rulison (Syracuse) Ph.B.
Waterford High School. 247 Sup't Alexander Falconer.
Wellsville High School. 248 Prin. S. J. Slawson (N. Y. S. Normal).
Whitehall High School. 249 Sup't W. W. Howe.

Elementary schools

Normal schools

- Brockport.** 250 Prin. C. T. McFarlane; 251 Mary Lillias Richardson (Smith and Radcliffe) M.A.
Cortland. 252 Francis J. Cheney (Syracuse) M.A. Ph.D.

Training schools

- Albany.** 253 Prin. William P. Burriss (De Pauw, Harvard and Columbia) M.A.
Syracuse. 254 Director George A. Lewis.

Training classes

- Cohoes.** 255 Helen M. Powell (N. Y. S. Normal).
Sandy Hill. 256 Rose E. Gibbons (Brockport Normal).

Grammar schools

- Albany Grammar School 21.** 257 Rose A. Farrell.
Esperance School. 258 Prin. Willard H. Waterbury (Cortland Normal).

Hunter Union School, Primary Department. 259 Prin. Eva A. Hammond (Potsdam Normal).

(Lansingburg) Powers School. 260 Prin. Kate E. Smith; 261 Anna M. Chase; 262 Kate E. Miter.

Newburgh Grammar School. 263 Prin. Charles E. Snyder (N. Y. S. Normal).

Poughkeepsie Central Grammar School. 264 Prin. Richard E. Coon (N. Y. S. Normal).

Rensselaer Grammar School 2. 265 Annie Diamond.

Sandy Hill Union School. 266 Mary McNeil (N. Y. S. Normal).

Staatsburg Union School. 267 Prin. Egbert Lewis.

Syracuse Grammar School. 268 C. R. Drum.

Troy Grammar School 6. 269 Mrs M. P. Richardson, *principal*.

Watervliet Grammar School 5. 270 Ernest A. Larkin (Illinois Normal).

Museums

Buffalo Society of Natural Sciences. 271 Elizabeth J. Letson, *director*.

OUTSIDE THE UNIVERSITY

Universities and colleges

Canton Christian College, Canton, China. 272 Pres. O. F. Wisner (Wooster, Ohio and Princeton) M.A. D.D.

St Mary's College, Portland Or. 273 Sister M. Gilbert (St Mary's College) B.A.

Professional schools

University of Pennsylvania, medical department. 274 Dean Charles H. Frazier M.D.

Academies, high schools and academic departments

Allegheny (Pa.) Preparatory School. 275 Prin. James Winne (Hamilton) M.A.

East Orange (N. J.) High School. 276 Prin. Charles W. Evans (Ohio Wesleyan) M.A.

Lakewood (N. J.) School. 277 Charles E. Snyder (Oneonta Normal).

Northampton Mass. 278 Sup't J. H. Carfrey (Syracuse) Ph.M.

Stockbridge (Mass.) High School. 279 Sup't and Prin. James A. Ayers (Hamilton) M. A.

The King School, Stamford Ct. 280 Bailey B. Burritt (Rochester and Teachers College, New York) M.A.

Business schools

Reynolds' Business School, Amsterdam. 281 Prin. R. E. Lee Reynolds (Glasgow Normal, Ky.).

Normal schools

Westfield (Mass.) Normal School. 282 Will Seymour Monroe (Stanford, Leipsic, Jena and Paris) B.A.

Elementary schools

Sacred Heart School, Cohoes. 283 Sister M. Cecilius; 284 Sister Mary Laurentius.

St Patrick's School, Watervliet. 285 Sister Mary James; 286 Sister M. Joseph.

Not officially connected with educational institutions

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- 327 Mrs M. G. Vulcheff (Oswego Normal) Albany
- 328 William Force Whitaker D.D., Albany
- 329 E. A. Winchell, Maynard, Merrill & Co., De Ruyter
- 330 Mrs Maude Woodworth, Suffern

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